WINDOW TECHNOLOGY
DOOR TECHNOLOGY
AUTOMATIC ENTRANCE SYSTEMS
BUILDING MANAGEMENT SYSTEMS

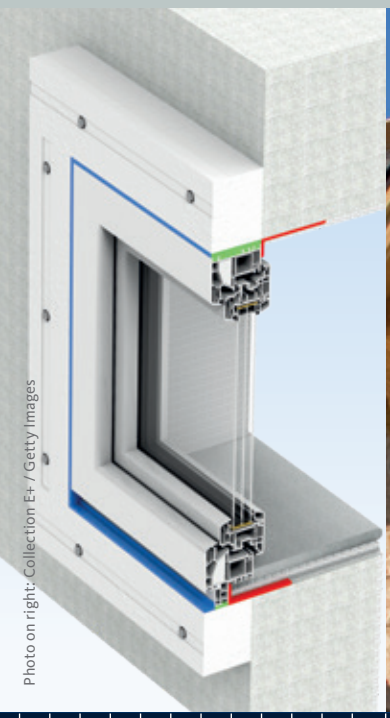


Photo on right: Collection E+ / Getty Images

DOOR AND WINDOW TECHNOLOGY – PLANNING GUIDE AND ORDER CATALOGUE

Installation material for windows and doors

Edition 11/2018

- Sealing systems
- Building chemicals
- Fastening technology
- Glazing technology

Securing technology for you

G-U BKS FERCO

The Gretsch-Unitas group

Securing technology for you

With kind permission of kap Planungsbüro für Bauleistungen GmbH, Fellbach

We have expanded our offering of construction accessories. This catalogue provides you with a comprehensive harmonised range of installation material for use in the following areas:

Sealing systems

Energy efficiency and sealing with precision: GU provides an extensive range of cutting-edge window and door seals and structural attachments. You will receive expert advice about current guidelines and regulations as well as plenty of useful information and recommendations regarding relevant currant standards.

Building chemicals

GU supplies a wide range of mutually compatible building chemicals. Everything that you need for the construction, installation and care of windows and doors can be found in this catalogue. For each product, there is a detailed description of fields of application and particular characteristics. It goes without saying that all products are state-of-the-art and comply with applicable standards and guidelines on protecting the environment.

Fastening technology

We collaborate closely with practitioners and developers to produce optimum fastening solutions for the building envelope of today and tomorrow. GU offers high quality solutions for windows and doors from production through to installation.

Glazing technology

The function of the glazing depends on suitable blocking, the frame construction and the selection of correct materials for implementation, among others. Correct blocking is one of the most important fundamentals when installing glazing. GU glazing tools and accessories allow for professional glass sheet installation even when the most demanding requirements must be met. Our large range of selected and tested materials offers a wide variety of solutions.

Sealing systems

Building chemicals

Fastening technology

Glazing technology

General information

General information

Weather protection – external

For heat and sound purposes

Separating indoor and outdoor environment

Construction-foil adhesive and sealants

Advantages of professional installation of window and door elements

Professional installation significantly influences the usability of windows and doors over a reasonable usage period. Continued development of structural engineering, in particular as regards building air tightness by reducing unplanned infiltration heat loss, requires air-tight window attachments. General requirements for the installation of windows should be derived from energy conservation regulations (in Germany, the Energieeinsparverordnung, EnEV) among other things. In order to keep the indoor and outdoor environment completely separate, the internal seal must be air-tight. In contrast, the external seal must allow transmission of water vapour but include protection against driving rain.

To ensure that all relevant features, standards and regulations are included in planning right from the start, everyone involved in the build – from designers (architects) to executors (workmen), right up to the client – should work as a team for the success of the building project and only use mutually compatible product systems which comply with the standards. The Gretsch-Unitas group offers exactly that: a range of accessory products covering every requirement in the professional installation of windows and doors – and all from a single source.

Collection E+ / Getty Images

Collection E+ / Getty Images

Getty Images

The developer or architect

- Offers his client a professional solution for existing stock or new buildings
- Complies with the requirements for passing an air tightness test (blower door test)
- Offers his client professional solutions that lead to savings in energy for heating and hence to reduced impact on the environment through CO2 emissions

The workman

- Has the matching system for every building component
- Complies with legal requirements
- Works with mutually compatible and reasonably priced materials

The client

- Saves on energy and costs
- Creates a pleasant indoor environment – no draughts
- Protects windows and masonry from damage for the long term
- Reduces health risks resulting from the growth of mould throughout the house

To ensure that the building can be planned and implemented in line with the applicable standards and regulations right from the start, on the following pages we have compiled and briefly explained all the important information about regulations, ordinances and German and European standards.

Improved living comfort with air-tight construction

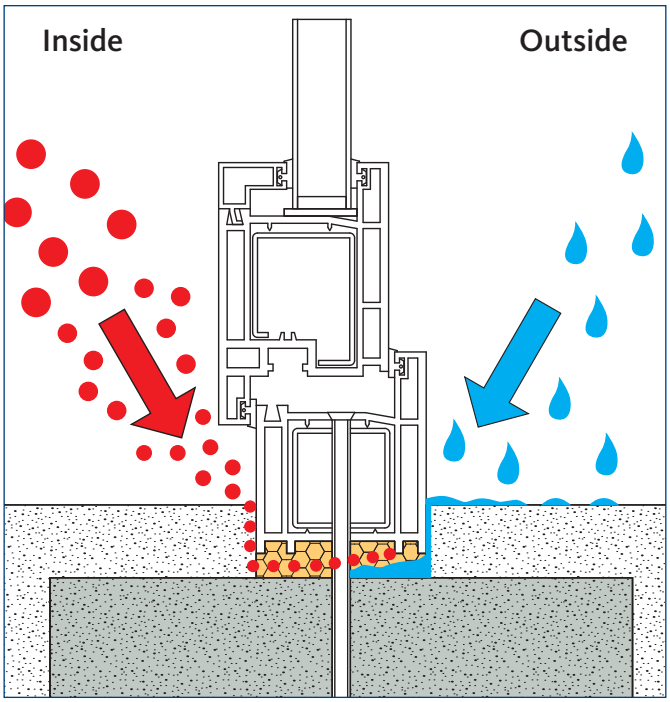
Getty Images

The requirement to create an air-tight building envelope is set down in European and country-specific ordinances.

Implementing this requirement can be subsidised by funding programmes in the client's country.

The specifications for the air-tight building envelope are designed to prevent harm to people and buildings. If these recommendations are not implemented or implemented incorrectly, the following problems are to be expected:

- High energy loss
- Damp-related damage due to condensation forming in the building structure, with resulting growth of mould
- Reduced sound insulation
- Diminished comfort as a result of draughts



When moist indoor air flows through building components it cools, and can lead to condensation inside the structure if the temperature falls below the dew point. This negatively affects the durability and can lead to the growth of mould. If air flows through the insulation because it does not have an air-tight finish, it is ineffectual. Heat then flows with the air through the insulation and out of the house.

Cutting-edge sealing technology (EnEV)

Collection E+ / Getty Images

Basic requirements for structures

The fundamental requirements to be met by buildings and the essential properties of construction products are defined in the European Construction Products Regulation (BauPVO). Alongside the basic requirements for "Mechanical resistance and stability", "Safety in case of fire", "Hygiene, health and the environment", "Protection against noise", "Safety and accessibility in use" and "Sustainable use of natural resources", the Regulation also lists "Energy economy and heat retention" as a requirement that must be met.

In Germany, the regulations go further, requiring compliance with the latest technology (EnEV).

"Buildings should be constructed in such a way that the heat-transmitting surface area, including joints, is sealed in accordance with the state of the art so as to be durably impermeable to air." (Energy Saving Regulation)

The air tightness of the building envelope saves energy for heating and prevents serious structural damage. Moreover, it increases the comfort and cosiness of the building and its value to the user.

An air tightness concept for the whole building needs to be developed during the planning stage. The physics of construction means that the air-tight layer should always be constructed on the inside to prevent penetration of warm moist internal air into the building component.

If internal air is able to penetrate into the building component, care must be taken to ensure that moisture condensing in the region of the thermal insulation profile does not cause damage. The principle of "a better seal inside than outside" applies.

It should also be borne in mind that, in addition to a functioning internal air-tight layer, protection against driving rain is needed on the outside. Because if moisture flows through the insulating materials, this destroys the thermal insulation capacity.

The construction products used in each case should be coordinated in such a way that, together, they produce a durable seal which complies with the standards mentioned above, creating an air-tight sealing system.

We can supply you with this complete window system from a single source, saving you time and worry – because our products are already perfectly matched to each other.

System for measuring air tightness

Differential pressure measurement

Differential pressure measurement, also called the blower door test, is used to measure the air tightness of the entire building. The test is used to detect leaks in the building envelope.

It is useful to carry out the blower door test on all new buildings or conversions in order to track down any imperfections in the building envelope and to correct them before construction is completed. Leaks often do not occur at windows and doors; instead, a lack of air tightness arises in transitional areas between floors and walls, and around windowsills, pipes, sockets, etc.

In buildings with ventilation systems, the blower door test is carried out as standard since proof of air tightness is required in order for this technology to be taken into consideration in the energy demand certificate. The certificate is required for government-funded low-energy and passive houses.

It should be the goal of any construction project to achieve a comfortable living space while keeping the associated energy requirements to a minimum. In order to do this, it is essential to create a relatively air-tight external envelope around every building. German standard DIN 4108, part 7, for instance, requires the "installation of an air-impermeable layer over the entire surface".

Products from Gretsch-Unitas meet all these specifications – saving you worry!

How the blower door test works

A fan is mounted in a door or window opening by means of an adjustable metal frame surrounded by an air-impermeable material. The fan is used to pump air into the building being tested, and then draws it out again during a second measurement step. The fan is set up in such a way that a pressure differential of 50 Pa is created with respect to the ambient pressure. The pressure differentials are based on a Force 5 wind.

The blower door test offers the opportunity:

- to detect leaks and their intensity
- to determine the air flow (V50 in m^3/h) from the sum of all leaks at a test pressure of 50 Pa (quantitative)
- to calculate the air changes per hour (V50 / V room = n50) at 50 Pa from the air flow and the room volume

The blower door test is divided into three stages:

- **Stage 1:** in the first stage, a constant pressure reduction of 50 Pa or slightly more is produced and maintained. During this stage, the building envelope is scanned for leaks where there is an undesirable inward flow of air. During later use of the building, these leakage spots are where air – and hence heat – will escape. This enables targeted repair of leaks in buildings.
- **Stage 2:** in the second stage, a reduction in pressure is built up, starting from small decreases in pressure (10 to 30 Pa) and gradually (e.g. in steps of 5 to 10 Pa) increasing to the final pressure difference (60 to 100 Pa). At each step, the respective air volume flow as a function of building pressure is measured and recorded.
- **Stage 3:** in the third stage, an overpressure is generated and the measurement is repeated as for the reduced pressure

After the measurements are completed and the appropriate air changes per hour are observed, the homeowner receives a certificate for the quality of the measured building envelope.

Compliance with safety standards

Quality classes of joint sealing tapes

Stress groups regulated by DIN 18542:2009-07

Sealing of outside wall joints with impregnated sealing tapes made of cellular plastics – Impregnated sealing tapes – Requirements and testing

The quality of joint sealing tapes is regulated by DIN 18542. This includes, among other things:

- Coefficient of joint permeability
- Air tightness
- Impermeability to driving rain at joints/joint intersections
- Resistance to changes in temperature
- Resistance to the effects of light and moisture
- Compatibility with other building materials
- Resistance to condensation
- Water vapour transmission properties
- Fire behaviour

Sealing tapes of stress group BG1 are suitable for joints that are directly exposed to the weather, i.e. for unprotected external use. They are impervious to driving rain* up to a differential pressure of at least 600 Pa.

Sealing tapes of stress group BG2 are likewise suitable for external use, but must not be exposed to direct weathering. They are impervious to driving rain* up to a differential pressure of 300 Pa.

Sealing tapes of stress group BGR are designed specifically for the room side and seal the joint in an air-tight manner. This means they are EnEV-compliant.

Stress groups according to DIN 18542

Stress type	Stress group		
	External use		Internal use
	BG1	BG2	BG R
Joint weathering	high	low	not applicable
Driving rain	high	low	not applicable
Condensation	low	low	high
Air humidity	long-term	long-term	long-term
Air tightness	low	low	high

Requirements

Test criteria	Stress group		
	External use		Internal use
	BG1	BG2	BG R
Coefficient of joint permeability, value a	a < 1.0 $m^3/[h \cdot m \cdot (daPa)^n]$	a < 1.0 $m^3/[h \cdot m \cdot (daPa)^n]$	a < 0.1 $m^3/[h \cdot m \cdot (daPa)^n]$
Air tightness	a < 1.0 $m^3/[h \cdot m \cdot (daPa)^{2/3}]$	a < 1.0 $m^3/[h \cdot m \cdot (daPa)^{2/3}]$	a < 0.1 $m^3/[h \cdot m \cdot (daPa)^{2/3}]$
Impermeability to driving rain of joints at ?p	≥ 600 Pa	≥ 300 Pa	–
Impermeability to driving rain of joint intersections at ?p	≥ 600 Pa	–	–
Resistance to changes in temperature	–20 °C up to +80 °C	–20 °C up to +60 °C	–20 °C up to +60 °C
Resistance to the effects of light and moisture	must be ensured	–	–
Compatibility with adjacent building materials	up to 80 °C	up to 60 °C	up to 60 °C
Resistance to condensation	–	–	100% rel. air humidity/85 °C
Water vapour transmission value sd ($sd = \mu \cdot t_F$)	≤ 0.5 m	≤ 0.5 m	calculated value
Fire behaviour	B1	B2/E	B2/E

* Impermeability to driving rain describes the capacity of a building structure or seal to withstand rainwater. For example, if impermeability to driving rain is 600 Pa, this means that, even at a pressure differential of 600 Pa, rainwater will not penetrate a joint seal.

Compliance with safety standards

Fire behaviour of building materials and building components;

Building material classes stipulated in DIN 4102

Fire behaviour of building materials and building components – Part 1: building materials, terms, requirements and tests

DIN 4102 "Fire behaviour of building materials and building components" is the standard which defines the flammability of building materials and the fire resistance of building components.

It sets out how to implement fire protection in line with building regulations as required by the building code, and fundamentally establishes a duty to investigate fire behaviour through standards testing.

DIN 4102 divides building materials into classes A and B. Class A includes non-flammable building materials.

Flammable building materials are assigned to grade B. The fire resistance of a building component refers to the length of time for which it will maintain its function in the event of a fire.

The flammable materials in grade B are divided into hardly inflammable (B1), normally inflammable (B2) and highly inflammable (B3) building materials.

Building material grade B2
Class B2 includes normally flammable materials – materials such as timber building components and wood-based materials with a thickness › 2 mm. Building materials in grade B2 can catch fire from sources of ignition and then continue to burn on their own – depending on the ambient conditions.

Building material class B3
Building material grade B3 includes highly flammable materials that burn rapidly. They can catch fire from small ignition sources and then continue to burn with no further input of heat and with increasing speed.

Highly flammable building materials are banned in Germany. In line with fire protection legislation, integrated building materials must as a minimum correspond to building material grade B2.

Classifying the fire behaviour of building materials

Technical inspection requirements	Additional requirements		European grade according to EN 13501-1*	Class to DIN 4102-1
	No smoke generation	No falling/dripping of burning material		
non-combustible contains no combustible building materials	X	X	A1	A1
non-combustible contains no combustible building materials	X	X	A2 – s1 d0	A2
hardly inflammable	X	X	B, C – s1 d0	B1
		X	A2, B, C – s2 d0	
		X	A2, B, C – s3 d0	
	X		A2, B, C – s1 d1	
	X		A2, B, C – s1 d2	
			A2, B, C – s3 d2	
normally inflammable	X	X	D – s1 d0	B2
		X	D – s2 d0	
		X	D – s3 d0	
	X		D – s1 d2	
			D – s2 d2	
			D – s3 d2	
		X	E	
			E – d2	
highly inflammable**			F	B3

s1 = no / hardly any smoke generation | s2 = limited smoke generation | s3 = unlimited smoke generation
d0 = no dripping/falling | d1 = limited dripping/falling | d2 = significant dripping/falling

*Since publication in the building regulations list 2002/1, only the new European standard EN 13501-1 is now used for classifying newly approved building materials.
**Not permitted in Germany.

Compliance with safety standards

Water vapour transmission properties

Water vapour transmission properties are regulated by DIN 4108-3

Thermal protection and energy economy in buildings
Part 3: Protection against moisture subject to climate conditions –
Requirements calculation methods and directions for design and construction

EN ISO 12572:2001

Hygrothermal performance of building materials and products –
Determination of water vapour transmission properties

DIN 18542:2009-07

Sealing of outside wall joints with impregnated sealing tapes made of cellular plastics –
Impregnated sealing tapes – Requirements and testing

In construction physics, vapour diffusion describes the transfer of moisture by molecule migration caused by the difference in vapour pressure of the air layers surrounding the building component. The exchange occurs due to the migration of moisture through an air-tight material layer.

The ingress of moisture into the structure is dependent on the resistance to diffusion (μ value) of the material.

The **water vapour diffusion resistance factor** (symbol μ) of a building material is a material-specific index. It indicates the factor by which the material in question is more vapour-resistant than an equally thick layer of static air. The higher the μ factor, the more vapour-resistant the building material is.

The **sd value** describes the water vapour transmission properties and consists of the material-specific index (μ value) and the material thickness in metres:

- $sd = \mu \cdot s$

DIN 4108-3 distinguishes between

- diffusion-open ($sd \leq 0.5$ m)
- diffusion-impeding ($0.5 < sd < 1500$ m) and
- diffusion-resistant ($sd \geq 1500$ m)

layers.

Building materials or building components that provide little resistance to vapour pressure are called "diffusion-open".

Environment and climate protection a priority for Gretsch-Unitas in Germany

Collection nPine / Getty Images

Where do I put used foam spray cans?

Roughly 25 million polyurethane (PUR) foam spray cans are used each year in Germany. Used cans are classified as hazardous waste under the German Closed Substance Cycle & Waste Management Act (Krw-/AbfG). As a result, they cannot be put in the general waste or mixed building waste, or in the packaging or tin recycling. It is also not permitted to burn them, as the German Packaging Ordinance (VerpackV) expressly states that used cans must be recycled (this is currently only the case in Germany).

To give users an opportunity to return and recycle, and to ensure high-quality recycling of the materials, in 1993 the European manufacturers of PUR foam spray cans set up the company PDR (**P**rodukte **d**urch **R**ecycling: products from recycling). By way of a convenient, Germany-wide collection and returns system, PDR is in a position to acquire all PUR foam spray cans sold to the German market and to recycle the residual components.

The PUR logo represents correct material recycling to the benefit of the environment. The return and recycling have already been paid for all cans that carry this symbol.

The German national returns and recycling service is so simple

Anyone who uses PUR foam spray cans by the box can simply put the used cans back in the original purchase box (= return box). Once the box is full, the user requests collection via the free information line (0800 7836736) or by fax (0800 7836737). The relevant information/fax form is included in every box.

PDR will then organise for the cans to be collected from the company – or even the building site – and transported to the recycling plant at Thurnau. If the original box goes missing or is unusable, return boxes can be requested free of charge from PDR.

For quantities of less than six boxes, PDR provides the company with return labels to stick on the box. The boxes can then be passed on free of charge to the DHL parcel service or handed over at the post office counter at the next opportunity.

Full information is available at:

www.pdr.de/loesungen/recycling-pur-schaumdosen

The three layers of window sealing

Good things come in threes

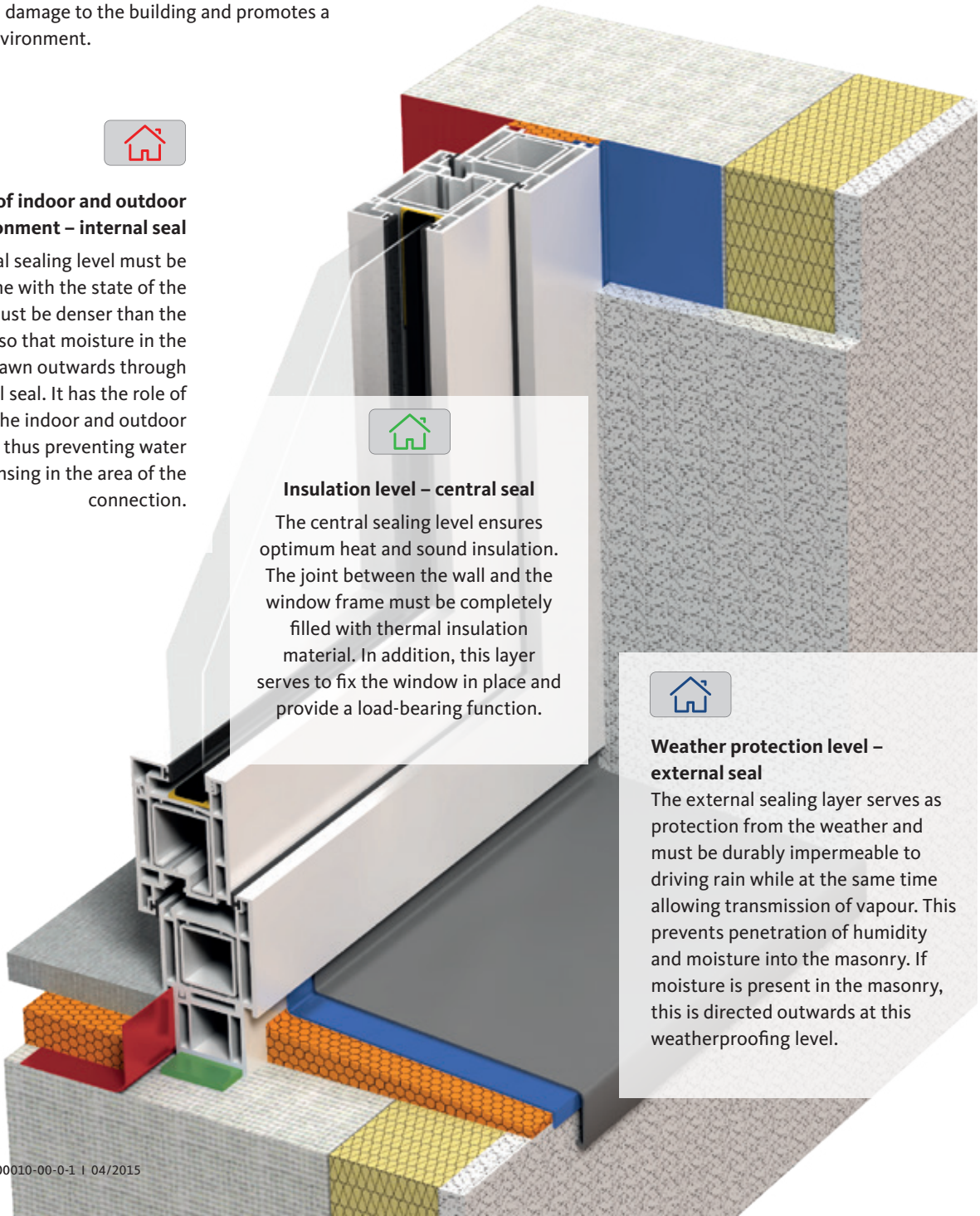
Invisible to the occupant of a house or apartment, the professional window seal between the window and the masonry is nonetheless of vital importance.

This connection (joint) must fulfil several functions. In order to avoid that these functions do not adversely affect one another, the sealing operation is carried out in 3 stages. A proper seal is therefore established via an interplay between the external, central and internal sealing layers. This interplay prevents moisture-induced damage to the building and promotes a healthy indoor environment.

Our perfectly coordinated components produce a complete sealing system which satisfies all aspects of energy conservation and associated regulations as well as the desire for comfort.

Separation of indoor and outdoor environment – internal seal

The internal sealing level must be air-tight in line with the state of the art (EnEV). It must be denser than the external seal, so that moisture in the masonry is drawn outwards through the external seal. It has the role of separating the indoor and outdoor environments, thus preventing water from condensing in the area of the connection.



Insulation level – central seal

The central sealing level ensures optimum heat and sound insulation. The joint between the wall and the window frame must be completely filled with thermal insulation material. In addition, this layer serves to fix the window in place and provide a load-bearing function.

Weather protection level – external seal

The external sealing layer serves as protection from the weather and must be durably impermeable to driving rain while at the same time allowing transmission of vapour. This prevents penetration of humidity and moisture into the masonry. If moisture is present in the masonry, this is directed outwards at this weatherproofing level.

For every level, the right product

		Central sealing level	Internal sealing level [1]		
External sealing level [1]	**Products**		**GU window sealing tape – internal use**	**GU joint sealing compound – internal use**	**GU butyl sheet for structural sealing – internal use**
	GU window sealing tape – external use	– GU sealing cord – GU gun foam – GU winter gun foam – GU-2K-quick foam – GU sealing tape BG1 – GU sealing tape BG2	■	■	■
	GU window sealing tape – external use, self-adhesive		■	■	■
	GU joint sealing tape BG1/600		■	■	■
	GU joint sealing tape BG2/300		■	■	■
	GU joint sealing compound – external use		■	■	■
	GU KSK sheet for structural sealing		■		
	GU EPDM sealing sheet – external use		■		■

[1] for suitable accessories such as GU sealants, GU EPDM construction adhesive or the GU primer refer to the page 124.

GU window sealing tape – external use

Product characteristics

- Watertight to EN 20811
- Open to diffusion
- Resistant to natural weathering and UV for up to 6 months
- Resistant to driving rain
- Self-adhesive on one side
- Resistant to microorganisms
- Can be plastered-over/painted-over
- Tested by ift, Rosenheim

Applications

- For sealing the joint between window, door and building structure in the external area so as to permit diffusion of vapour
- It is also suitable for paint work and insulation

GU window sealing tape – external use

Technical data and requirements

GU window sealing tape – external use	Classification and grading	NF / ISO / DIN standard
Laminate composition	PES – PE – PES	
Weight	145 g/m²	EN 29073-1
Thickness	0.43 mm	DIN 53 855
Tear-out force		
Longitudinal	301 N/5cm	EN 12311-1
Transverse	34 N/5cm	EN 12311-1
Elongation at break		
Longitudinal	18%	EN 12311-1
Transverse	132%	EN 12311-1
Water vapor diffusion equivalent air layer thickness sd-value	Approx. 0.05 m	
Watertightness	2000 m	EN 20811
Fire behaviour	B2	DIN 4102
Thermal stability	–40°C +80°C	
Natural weathering / UV	6 months	

Order information

Designation	Packaging	Length of roll	Width of roll	PU	Article number
GU window sealing tape – external use	Rollers	25 m	50 mm	100 m	H-01444-05-0-0
		25 m	75 mm	100 m	H-01444-07-0-0
		25 m	100 mm	100 m	H-01444-10-0-0
		25 m	150 mm	100 m	H-01444-15-0-0
		25 m	200 mm	100 m	H-01444-20-0-0
		25 m	250 mm	100 m	H-01444-25-0-0
		25 m	300 mm	100 m	H-01444-30-0-0
		25 m	350 mm	100 m	H-01444-35-0-0
		25 m	400 mm	100 m	H-01444-40-0-0

GU window sealing tape – external use

Processing

- The GU aluminium window sealing tape is stuck to the window frame. Depending on the construction this is done before or after the installation of the window.
- Afterwards the joint is filled with GU PU foam. Once the foam has cured, the tape is attached to the building structure with GU sealant and glued.
- The sheet joints are sealed with GU sealing compound
- The GU aluminium window sealing tape for external use can be plastered-over or painted-over

Building component testing

Bauteilprüfung

Luftdichtheit und Schlagregendichtheit von Abdichtungssystemen zwischen Fenster und Baukörper im Neuzustand sowie nach simulierten Kurzzeitbelastungen

Prüfbericht
Nr. 12-001394-PR01
(PB-E03-02-de-01)

ift ROSENHEIM

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
Deutschland

Abdichtungssystem zwischen Fenster und Baukörper

Dämmung: ① 1K PU-Ortschaum
Abdichtung: raumseitig umlaufend:
① GU-Fensterdichtband Innen Alu mit Selbstklebung (Rahmen) und MS-Polymer-Klebstoff (Mauerwerk)
außenseitig umlaufend:
① GU-Fensterdichtband Außen mit Selbstklebung (Rahmen) und MS-Polymer-Klebstoff (Mauerwerk)

Verputztes Mauerwerk aus Hochlochziegel mit stumpfer Leibungsausbildung. Kunststofffenster mit Stahlarmierung im Flügel- und Blendrahmen.
Befestigung zum Baukörper umlaufend mit Rahmenschrauben.
Befestigungsabstände ≤ 700 mm.
Abdichtung raum- und außenseitig zwischen Blendrahmen und glattgestrichener Mauerleibung. Verarbeitung nach den Vorgaben des ursprünglichen Auftraggebers.
Außen Aluminium-Fensterbank mit aufgesteckten Endstücken.
Raumseitig luftdichter und außenseitig schlagregendichter Fugenabschluss zwischen Außenwand und Fenster bzw. Fenstertüren aus weißen PVC-Hohlkammerprofilen mit gleichwertiger Ausführung, wie oben beschrieben.

-/-

Ergebnisse *)

Luftdurchlässigkeit bis zu ± 1000 Pa, im Neuzustand	a < 0,1 m³/(m h daPa$^{2/3}$)
Simulierte Kurzzeitbelastungen (Temperaturwechsel, Wind, Nutzung)	visuell keine Beeinträchtigung der Anschlussfugen
Luftdurchlässigkeit bis zu ± 1000 Pa, nach simulierten Kurzzeitbelastungen	a < 0,1 m³/(m h daPa$^{2/3}$)
Schlagregendichtheit bis 600 Pa, nach simulierten Kurzzeitbelastungen	kein Wassereintritt

*) Einzelergebnisse siehe Prüfbericht Abschnitt 3

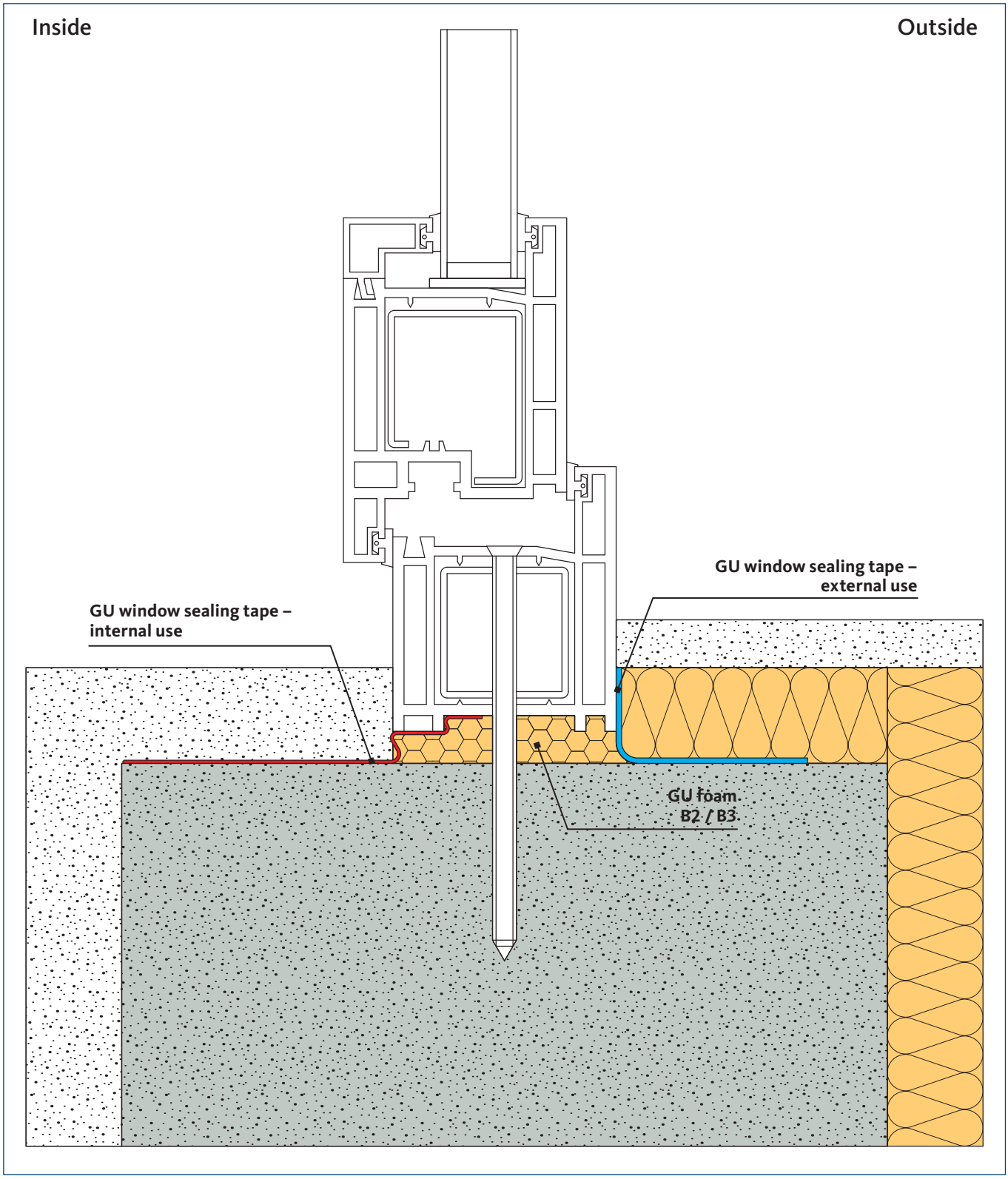
ift Rosenheim
11. Mai 2012

Jörn Peter Lass, Dipl.-Ing. (FH)
Prüfstellenleiter
Bauteile

Wolfgang Jehl, Dipl.-Ing. (FH)
Produktingenieur
Baustoffe & Halbzeuge

GU window sealing tape – external use

Installation sketch



Self-adhesive GU window sealing tape – external use

Product characteristics

- Self-adhesive on both sides, for masonry frame
- Also self-adhesive for external window ledge connection
- Watertight to EN 20811
- Open to diffusion
- Resistant to natural weathering and UV for up to 6 months
- Resistant to driving rain
- Resistant to microorganisms
- Can be plastered-over/painted-over
- Tested by ift, Rosenheim

Applications

- For sealing the joint between window, door and building structure in the external area so as to permit diffusion of vapour
- It is also suitable for paint work and insulation
- Can be used for the side, lower and upper connection

GU window sealing tape – external use, self-adhesive

Technical data and requirements

GU window sealing tape – external use, self-adhesive	Classification and grading	NF / ISO / DIN standard
Laminate composition	PES – PE – PES	
Weight	145 g/m²	EN 29073-1
Thickness	0.43 mm	DIN 53 855
Tear-out force		
Longitudinal	301 N/5cm	EN 12311-1
Transverse	34 N/5cm	EN 12311-1
Elongation at break		
Longitudinal	18%	EN 12311-1
Transverse	132%	EN 12311-1
Water vapor diffusion equivalent air layer thickness sd-value	Approx. 0.05 m	
Watertightness	2000 m	EN 20811
Fire behaviour	B2	DIN 4102
Thermal stability	–40°C +80°C	
Natural weathering / UV	6 months	

Order information

Designation	Packaging	Length of roll	Width of roll	PU	Article number
GU window sealing tape – external use, self-adhesive	Rollers	25 m	75 mm	100 m	H-01524-07-0-0
		25 m	100 mm	100 m	H-01524-10-0-0
		25 m	150 mm	100 m	H-01524-15-0-0
		25 m	200 mm	100 m	H-01524-20-0-0
		25 m	250 mm	100 m	H-01524-25-0-0

GU window sealing tape – external use, self-adhesive

Processing

- **Substrate/joint surface**
  Surface treatment: please check the adhesion properties and compatibility of the substrate. Pretreat the substrate with GU primer if necessary.
- The GU aluminium window sealing tape is stuck to the window frame. Depending on the construction this is done before or after the installation of the window.
- Afterwards the joint is filled with GU PU foam
- Firmly press the self-adhesive GU window sealing tape for external use on to the building structure with the GU pressure roller
- GU window sealing tape for external use can be plastered-over or painted-over

Building component testing

Nachweis

Haftfestigkeitsprüfung an Fugendichtungsfolien im Scherversuch

Prüfbericht
Nr. 14-003427-PR02
(PB-K07-09-de-01)

ift ROSENHEIM

Auftraggeber: Gretsch-Unitas GmbH, Baubeschläge, Johann-Maus-Str. 3, 71254 Ditzingen, Deutschland

Produkt: Fugendichtungsfolien für Baukörperanschlüsse

Bezeichnung: selbstklebend, Dispersionskleber auf Polyacrylatbasis
in Verbindung mit den Fugendichtungsfolien
GU Fensterdichtband Außen selbstklebend (Varianten A.-F.), GU Fensterdichtband in/out selbstklebend (Varianten A.-F.), GU Fensterdichtband Innen selbstklebend (Varianten A.-F.)

Fugendichtungsfolie: Referenzband mit Butylselbstklebestreifen (Variante B.3, Referenzprobe)

Untergründe: A. Ziegel B. Ziegel mit Glattstrich C. Beton D. Kalksandstein E. Leichtbeton F. Porenbeton

Vorbehandlung mit: lösemittelfreier Primer/- Haftkleber (Varianten A.1 bis F.1) bzw. lösemittelhaltiger Primer (Variante B.3, Referenzprobe)

Besonderheiten: -/-

Ergebnis

Variante *		Haftfestigkeit in N/mm² (Mittelwertangaben) GU Fensterdichtband Außen selbstklebend	GU Fensterdichtband in/out selbstklebend	GU Fensterdichtband Innen selbstklebend	Referenzprobe
A.	1	0,062	0,037	0,056	-/-
	2	0,047	0,041	0,033	-/-
	3	-/-	-/-	-/-	0,036
B.	1	0,061	0,041	0,057	-/-
	2	0,044	0,045	0,034	-/-
C.	1	0,077	0,044	0,064	-/-
	2	0,061	0,053	0,047	-/-
D.	1	0,072	0,048	0,072	-/-
	2	0,068	0,061	0,056	-/-
E.	1	0,062	0,047	0,051	-/-
	2	0,051	0,046	0,033	-/-
F.	1	0,064	0,043	0,055	-/-

* 1 grundiert mit lösemittelarmer Primer/- Haftkleber, 2 unbehandelt,
3 grundiert mit lösemittelhaltiger Primer

Grundlagen
ift-Richtlinie MO-01/1 Bauteilprüfungen von Fenstern - Teil 1: Verfahren zur Ermittlung der Gebrauchstauglichkeit von Abdichtungssystemen, 2007-01

Prüfbericht 14-003427-PR02 (PB-K07-09-de-01) vom 02.12.2014

Darstellung

Verwendungshinweise
Die ermittelten Ergebnisse können für den Nachweis entsprechend den oben angegebenen Grundlagen verwendet werden.

Gültigkeit
Die genannten Daten und Ergebnisse beziehen sich ausschließlich auf den geprüften/beschriebenen Probekörper.
Die Prüfung ermöglicht keine Aussage über weitere Anforderungs- und qualitätsbestimmende Eigenschaften des vorliegenden Produkts, insbesondere Witterungs- und Alterungseinflüsse wurden nicht berücksichtigt.

Veröffentlichungshinweise
Es gilt das "Merkblatt zur Benutzung von ift-Prüfberichten/-aussagen".
Das Deckblatt kann als Kurzfassung verwendet werden.

Inhalt
Der Nachweis umfasst insgesamt 10 Seiten.

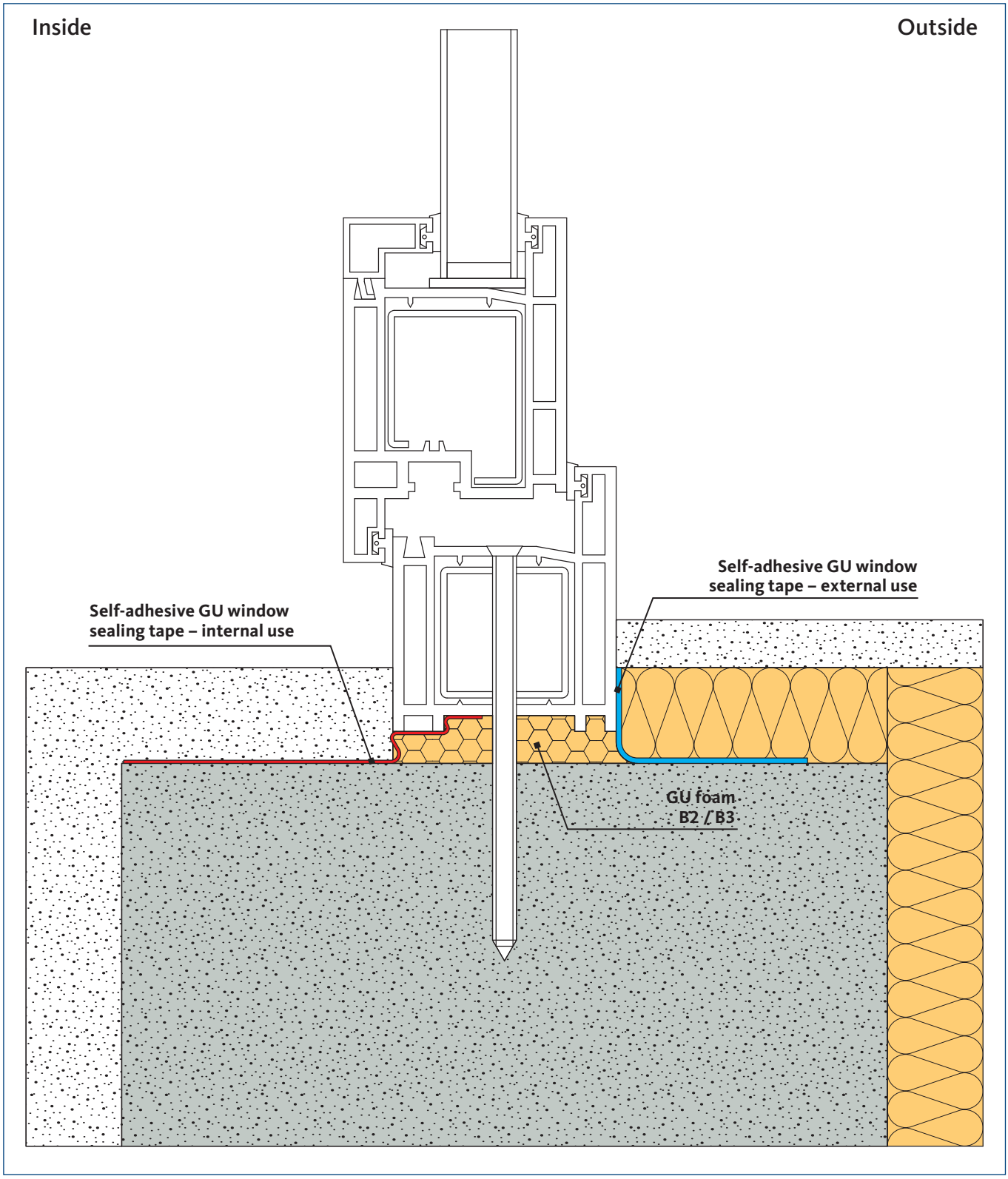
ift Rosenheim
03.12.2014

Wolfgang Jehl, Dipl.-Ing. (FH)
Stv. Prüfstellenleiter
Baustoffe & Hallenbau

Christian Neudecker
Prüfingenieur
Materialprüfung

Self-adhesive GU window sealing tape – external use

Installation sketch



GU Powertape, outside, completely self-adhesive

Product characteristics

- Self-adhesive on both sides, for masonry frame
- Also self-adhesive surface bonding for external window ledge connection
- Watertight to EN 20811
- Open to diffusion
- Resistant to natural weathering and UV for up to 6 months
- Resistant to driving rain
- Resistant to microorganisms
- Can be plastered-over / painted-over
- Tested by ift, Rosenheim
- Application range to –10°C

Applications

- For sealing the joint between window, door and building structure in the external area so as to permit diffusion of vapour
- It is also suitable for paint work and insulation
- Can be used for the side, lower and upper connection

GU Powertape, outside, completely self-adhesive

Technical data and requirements

GU Powertape, outside, completely self-adhesive	Classification and grading	NF / ISO / DIN standard
Laminate composition	PES – PE – PES	
Weight	145 g/m²	EN 29073-1
Thickness	0.43 mm	DIN 53 855
Tear-out force		
Longitudinal	380 N/5cm	EN 12311-1
Transverse	80 N/5cm	EN 12311-1
Elongation at break		
Longitudinal	20%	EN 12311-1
Transverse	130%	EN 12311-1
Water vapor diffusion equivalent air layer thickness sd-value	Approx. 0.05 m	
Watertightness		EN 1928 W1
Fire behaviour		DIN 13501-1 grade E
Thermal stability	–40°C +80°C	
Natural weathering / UV	6 months	

Order information

Designation	Packaging	Length of roll	Width of roll	PU	Article number
GU Powertape, outside, completely self-adhesive	Rollers	25 m	75 mm	100 m	H-01870-07-0-0
		25 m	100 mm	100 m	H-01870-10-0-0
		25 m	150 mm	100 m	H-01870-15-0-0
		25 m	200 mm	100 m	H-01870-20-0-0
		25 m	250 mm	100 m	H-01870-25-0-0

GU Powertape, outside, completely self-adhesive

Processing

- **Substrate/joint surface**
  Surface treatment: please check the adhesion properties and compatibility of the substrate. Pretreat the substrate with GU primer if necessary.
- The GU power tape is glued to the window frame. with the self-adhesive strip. Depending on the construction this is done before or after the installation of the window.
- Afterwards the joint is filled with GU PU foam
- Firmly press the GU power full surface-bonding tape for external use onto the building structure with the GU pressure roller
- The GU power tape for external use can now be levelled, plastered-over or painted-over

Building component testing

Nachweis

Haftfestigkeitsprüfung an Fugendichtungsfolien im Scherversuch

Prüfbericht
Nr. 14-003427-PR02
(PB-K07-09-de-01)

ift ROSENHEIM

Auftraggeber: Gretsch-Unitas GmbH, Baubeschläge, Johann-Maus-Str. 3, 71254 Ditzingen, Deutschland

Produkt: Fugendichtungsfolien für Baukörperanschlüsse

Bezeichnung: selbstklebend, Dispersionskleber auf Polyacrylatbasis
in Verbindung mit den Fugendichtungsfolien:
GU Fensterdichtband Außen selbstklebend (Varianten A.-F.), GU Fensterdichtband in/out selbstklebend (Varianten A.-F.), GU Fensterdichtband Innen selbstklebend (Varianten A.-F.)
Fugendichtungsfolie: Referenzband mit Butylselbstklebestreifen (Variante B.3, Referenzprobe)

Untergründe: A. Ziegel B. Ziegel mit Glattstrich C. Beton D. Kalksandstein E. Leichtbeton F. Porenbeton
Vorbehandlung mit: lösemittelfreier Primer/- Haftkleber (Varianten A.1 bis F.1) bzw. lösemittelhaltiger Primer (Variante B.3, Referenzprobe)
Besonderheiten: -/-

Grundlagen: ift-Richtlinie MO-01/1 Bauteilanschluss von Fenstern – Teil 1: Verfahren zur Ermittlung der Gebrauchstauglichkeit von Abdichtungssystemen, 2007-01

Prüfbericht 14-003427-PR01 (PB-K07-09-de-01) vom 02.12.2014

Darstellung

Verwendungshinweise

Ergebnis

Variante *		Haftfestigkeit in N/mm² (Mittelwertangaben) GU Fensterdichtband Außen selbstklebend	GU Fensterdichtband in/out selbstklebend	GU Fensterdichtband Innen selbstklebend	Referenzprobe
A.	1	0,062	0,037	0,056	-/-
	2	0,047	0,041	0,033	-/-
	3	-/-	-/-	-/-	0,035
B.	1	0,061	0,041	0,057	-/-
	2	0,044	0,045	0,034	-/-
C.	1	0,077	0,044	0,064	-/-
	2	0,061	0,053	0,047	-/-
D.	1	0,072	0,048	0,072	-/-
	2	0,068	0,051	0,050	-/-
E.	1	0,062	0,047	0,051	-/-
	2	0,051	0,046	0,033	-/-
F.	1	0,064	0,043	0,055	-/-

* 1 grundiert mit lösemittelfreier Primer- Haftkleber, 2 unbehandelt, 3 grundiert mit lösemittelhaltiger Primer

Gültigkeit

Veröffentlichungshinweise

Inhalt

ift Rosenheim
03.12.2014

Wolfgang Jehl, Dipl.-Ing. (FH)
Stv. Prüfstellenleiter
Baustoffe & Halbzeuge

Christian Neudecker
Prüfingenieur
Materialprüfung

Determining the concentration (DGNB/LEED suitability)

Analytik Aurachtal

Analytik Aurachtal GmbH
Wirtshöhe 6
91086 Aurachtal
Tel.: (0049) 9132 75034-0
Fax.:(0049) 9132 75034-29
www.analytik-aurachtal.com
info@analytik-aurachtal.com

Analytik Aurachtal GmbH • Wirtshöhe 6 • 91086 Aurachtal

Gretsch- Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

15. August 2018
Seite 1 von 5

Labornummer: E807134
Bearbeiter: C. Korbacher
Untersuchungszeitraum: 28.06. – 14.08.2018

Auftragsdatum: 13.07.2018
Eingangsdatum: 16.07.2018
Bestellnummer: 2018-31267

Laborbericht

Untersuchungsproben: GU-Bänder

Proben: 3x Materialprobe

Untersuchungsauftrag:

Analytik Aurachtal wurde im Rahmen einer Konzentrationsermittlung beauftragt (DGNB- und LEED-Eignung), das Material auf Flammschutzmittel, leichtflüchtige organische Verbindungen und Formaldehyd sowie auszugsweise auf Metalle zu untersuchen. Die Beauftragung erfolgte mit Zusendung der Proben.

Die Proben wurden vom Auftraggeber genommen und eingeschickt. Die Untersuchungsergebnisse berücksichtigen ausschließlich die eingesandten und untersuchten Proben.

Durch die DAkkS nach DIN EN ISO/IEC 17025 akkreditiertes Prüflaboratorium. Die Akkreditierung gilt nur für die in der Urkunde aufgeführten Prüfverfahren. Akkreditierte Prüfverfahren sind im Bericht zusätzlich mit „a" gekennzeichnet. Anmerkungen, Beurteilungen und zusammenfassende Beurteilungen sind nicht akkreditierbar. Die Prüfergebnisse beziehen sich ausschließlich auf die Prüfgegenstände. Nur unterschriebene Berichte sind rechtsgültig. Die auszugsweise Veröffentlichung des Berichtes ohne unsere schriftliche Genehmigung ist nicht zulässig.

DAkkS

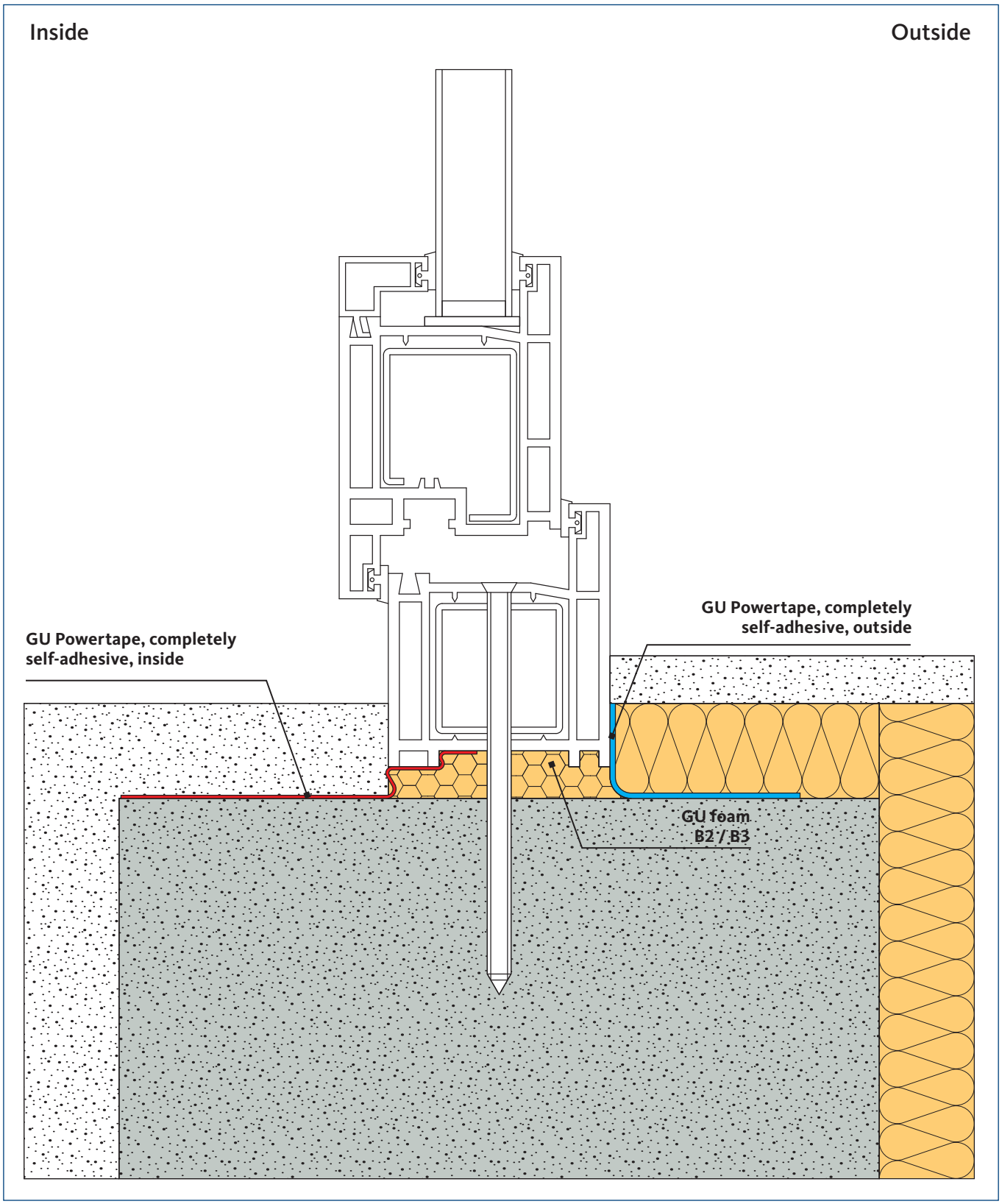
Hypo Vereinsbank Hersgenaurach
Kontonummer: 16 904 511
Bankleitzahl: 763 200 72
Ust. Ident. Nr.: DE 815333348

SWIFT (BIC): HYVEDEMM417
IBAN: DE32 7632 0072 0016 9045 11
Registergericht: Amtsgericht Fürth
Handelsregister-Nr: HRB 13281

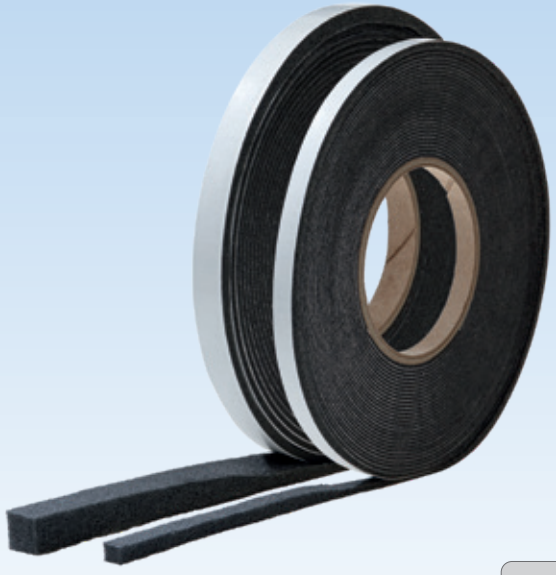
Geschäftsführer:
Dr. Thomas Wirkner, Dipl. Chem.
Christian Scheid, Dipl.-Ing. (FH)
Dr. Thomas Forst, Dipl. Chem.

GU Powertape, outside, completely self-adhesive

Installation sketch



GU joint sealing tape BG1/600



Product description

GU joint sealing tape BG1/600 is a PUR sealing sheet impregnated with polymer dispersion. It has been specially designed for reliable joint sealing in high-rise buildings and façades up to 100 m tall. As a quality-tested BG1 joint sealing tape, it meets the high requirements of DIN 18542. In addition to an impermeability to driving rain of over 750 Pa GU joint sealing tape BG1/600 also has excellent sound and thermal insulation characteristics.

Product characteristics

- Meets the requirements of BG1 according to DIN 18542
- Safety due to wide range of joint applications
- Sealing against wind, dust, spray and driving rain
- Permits vapour diffusion
- High adhesive strength during installation
- Permanently elastic, with good ongoing expansion compensation behaviour
- Provides sound and thermal insulation
- Can be coated with common emulsion paints
- Can be used in all fields of construction and all types of building
- Solvent-free, no dangerous material
- 10 year functional guarantee
- Tested according to "EC1 plus – very low emission"

Applications

The range of applications includes sealing joints (including expansion joints) between

- Pre-cast concrete components
- Frame and masonry
- Skylight inserts
- Window sill attachments

and also in the following areas

- Trapezoidal sheet metal, sandwich and metal construction
- Prefabricated construction using concrete and other building materials
- Solid, timber and drywall construction
- Window installation

GU joint sealing tape BG1/600

Technical data and requirements

GU joint sealing tape BG1/600	Classification and grading	NF / ISO / DIN standard
Material description	impregnated flexible PUR foam	
Base	Acrylic resin	
Stress group	BG1	DIN 18542
Coefficient of joint permeability	a ≤ 1.0 $m^3/[h \cdot m \cdot (daPa)^n]$	DIN 18542
Impermeability to driving rain of joints	≥ 750 Pa	DIN EN 1027
Impermeability to driving rain of joint intersections	≥ 750 Pa	DIN EN 1027
Resistance to changes in temperature	–20 °C up to +80 °C	DIN 18542
Workable up to	–5 °C	
Resistance to effects of light and weathering	Requirements fulfilled	DIN 18542
Compatibility with adjacent building materials	Requirements fulfilled	DIN 18542
Thermal conductivity	λ 10 ≤ 0.0478 W/m x K	DIN 52612
Resistance to water vapour diffusion	μ ≤ 100	DIN EN ISO 12572
Overall emission	According to "EC1 plus – very low emission"	
Long-term durability	10 year functional guarantee	
Building material class	B1 (hardly inflammable)	DIN 4102

Order information

Designation	Joint depth	Joint width	Delivery	Length of roll	Colour	PU	Article number
GU joint sealing tape BG1/600	10 mm	1 – 4 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	13.0 m	Black	390.0 m	H-01369-00-0-0
	12 mm	2 – 6 mm		12.0 m	Black	300.0 m	H-01369-01-0-0
	15 mm	4 – 9 mm		8.0 m	Black	160.0 m	H-01369-02-0-0
	15 mm	5 – 12 mm		5.6 m	Black	112.0 m	H-01369-03-0-0
	20 mm	9 – 20 mm		3.3 m	Black	49.5 m	H-01369-04-0-0
	25 mm	11 – 25 mm		2.6 m	Black	31.2 m	H-01369-05-0-0
Designation	**Joint depth**	**Joint width**	**Delivery**	**Length of roll**	**Colour**	**PU**	**Article number**
GU joint sealing tape BG1/600	10 mm	1 – 4 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	13.0 m	Grey	390.0 m	H-01369-00-0-1
	12 mm	2 – 6 mm		12.0 m	Grey	300.0 m	H-01369-01-0-1
	15 mm	4 – 9 mm		8.0 m	Grey	160.0 m	H-01369-02-0-1
	15 mm	5 – 12 mm		5.6 m	Grey	112.0 m	H-01369-03-0-1
	20 mm	9 – 20 mm		3.3 m	Grey	49.5 m	H-01369-04-0-1
	25 mm	11 – 25 mm		2.6 m	Grey	31.2 m	H-01369-05-0-1

GU joint sealing tape BG1/600

Processing

- **Substrate/joint surface**
  Surface treatment of joints: please remove dust, oil, grease, old sealing material and remnants of mortar from the joint edges
- **Determining the joint widths**
  The joint edges must be parallel. Measure the joint widths and choose the corresponding tape sizes for the joint tolerances that have been determined/ are to be expected (if appropriate work with varying tape sizes).
- **Preparing the tape**
  When cutting the tape, make an allowance of at least 1 cm per m. Cut off the over-compressed beginning and end pieces of the roll. Remove the backing from the self-adhesive foil and stick the pre-compressed tape into the joint. Begin with the vertical joint. Press the self-adhesive side firmly against the joint edge. In doing so, take care to ensure that the tape is not stretched, especially in the case of pieces that are too short. As the tape will pull back to its original length after a time, this can lead to leakage spots.
- **Joints in the tape**
  The individual strips of tape can be extended in the joint by lining up the tapes, which have been cut to exact size, and gently compressing them
- **Working on cross and T joints**
  First stick the tape in the vertical joint. Then position the tapes in the horizontal joints and line it up against the tape in the vertical joint. In doing so, do not stretch the tape, but compress it.

Storage

- Store in the unopened packaging in a cool (+1 °C to +20°C), dry place

Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Allgemeines bauaufsichtliches Prüfzeugnis

Prüfzeugnisnummer: P - ND504 - 1155

Gegenstand: Fugendichtungsband „GU Fugendichtband - BG1 / 600"

Antragsteller: Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

Ausstellungsdatum: 19. Oktober 2017
Geltungsdauer: 30. November 2020

Dieses allgemeine bauaufsichtliche Prüfzeugnis umfasst 5 Seiten.

Auftragsnummer: 175756

Technical appraisal certificate

Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.

GEV EMICODE

Lizenzerteilung zur Führung des EMICODE

Lizenzierungs-Nummer: 8685/24.10.16
Für den Artikel: GU Fugendichtband-BG1/600
wird auf Antrag vom: 13.12.2017

unter Bezugnahme auf die Einstufung gemäß den nach § 10 der GEV-Zeichensatzung festgelegten Richtlinien

namens der Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V. für den oben genannten Artikel nach § 5 Abs. 4 der GEV-Zeichensatzung die Lizenz zur Führung des GEV-Zeichens

GEV-EMICODE EC 1 PLUS sehr emissionsarm

erteilt. Damit erfüllt dieser Artikel die rückseitig aufgeführten Kriterien.
Die Firma ist ordentliches Mitglied der GEV.

OM 138 13.12.2017
gültig bis 13.12.2022

Der Geschäftsführer

Licensed by EMICODE

Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Prüfbericht Nr. 176226

1. Ausfertigung vom 22.11.2017

Auftraggeber: Gretsch-Unitas GmbH Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

Auftrag vom: 09.11.2017

Inhalt des Auftrags: Zusammenfassung der Prüfergebnisse nach DIN 18542 Beanspruchungsgruppe BG1 für das Fugendichtungsband: „GU Fugendichtband - BG1 / 600"

Ausstellungsdatum: 22. November 2017

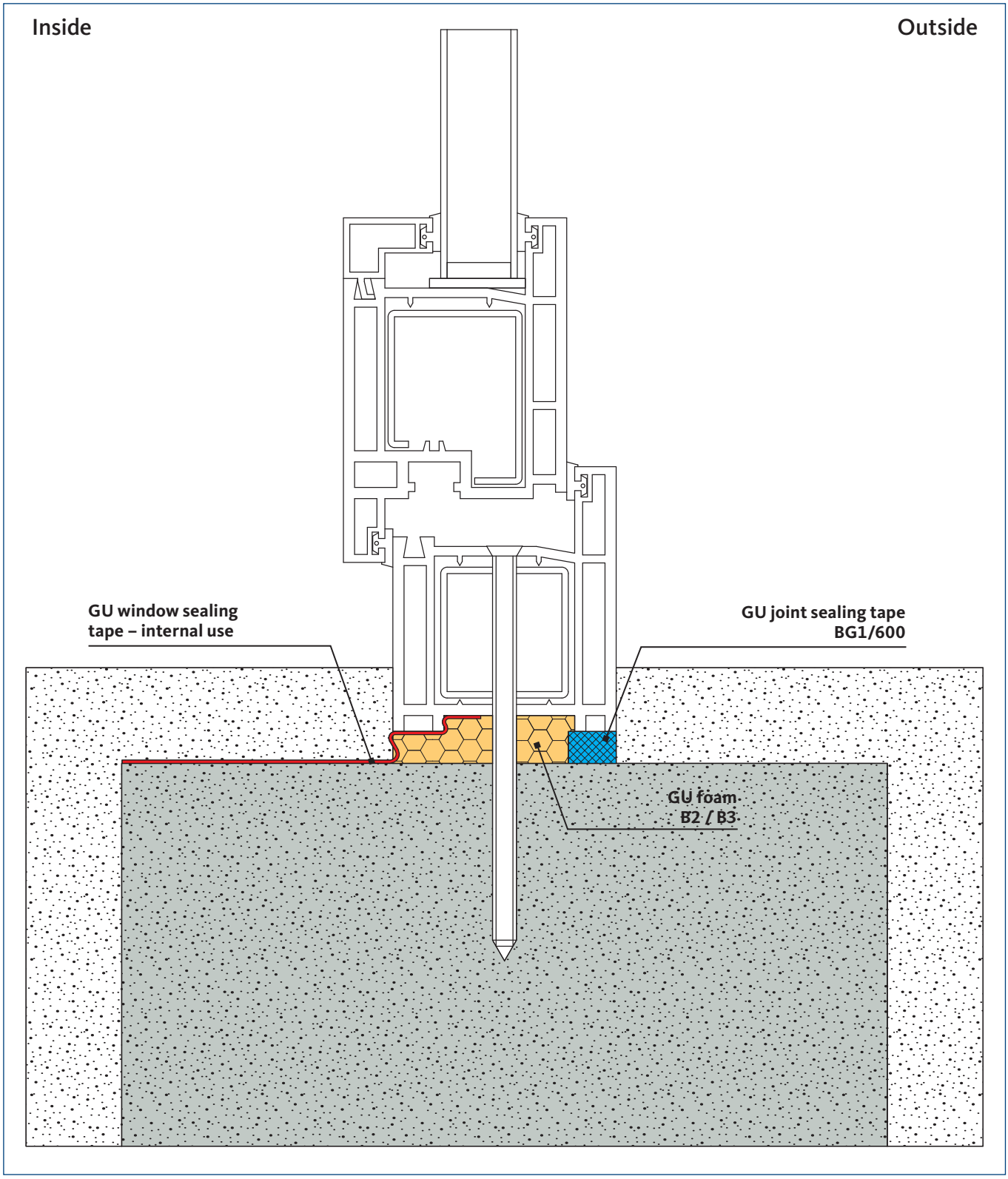
Geltungsdauer bis: 30. November 2020

Der Prüfbericht umfasst 5 Seiten.

Test report

GU joint sealing tape BG1/600

Installation sketch



GU joint sealing tape BG2/300

Product description

GU joint sealing tape BG2/300 is a PUR sealing sheet impregnated with polymer dispersion. When compressed, it is ideally suited to sealing against driving rain, draughts and dust. Under appropriate compression, it provides reliable protection against driving rain to over 450 Pa. GU joint sealing tape BG2/300 furthermore has a sound and thermal insulation function. It therefore satisfies the stringent BG2 qualification requirements according to DIN 18542.

Product characteristics

- Meets the requirements of BG2 according to DIN 18542
- Sealing against wind, dust, spray and driving rain
- Permits vapour diffusion
- High adhesive strength during installation
- Permanently elastic, with good ongoing expansion compensation behaviour
- Provides sound and thermal insulation
- Can be coated with common emulsion paints
- Solvent-free, no hazardous substance
- 10 year functional guarantee

Applications

- GU joint sealing tape BG2/300 is ideal for sealing joints and connections in high-rise buildings and facades
- It is particularly well suited for use in window, metal, solid, timber and drywall construction
- It can also be used for decoupling

GU joint sealing tape BG2/300

Technical data and requirements

GU joint sealing tape BG2/300	Classification and grading	NF / ISO / DIN standard
Material description	impregnated flexible PUR foam	
Base	Acrylic resin	
Stress group	BG2	DIN 18542
Coefficient of joint permeability	a ≤ 1.0 $m^3/[h \cdot m \cdot (daPa)^n]$	DIN 18542
Impermeability to driving rain of joints	≥ 450 Pa	DIN EN 1027
Resistance to changes in temperature	–20 °C up to+60 °C	DIN 18542
Workable up to	–5 °C	
Resistance to effects of light and weathering	Requirements fulfilled	DIN 18542
Compatibility with adjacent building materials	Requirements fulfilled	DIN 18542
Resistance to water vapour diffusion	μ ≤ 100	DIN EN ISO 12572
Long-term durability	10 year functional guarantee	
Building material class	B2 (normally inflammable)	DIN 4102

Order information

Designation	Joint depth	Joint width	Delivery	Length of roll	Colour	PU	Article number
GU joint sealing tape BG2/300	10 mm	1 – 4 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	13.0 m	Black	390.0 m	H-01370-00-0-0
	12 mm	2 – 6 mm		12.0 m	Black	300.0 m	H-01370-01-0-0
	15 mm	4 – 9 mm		8.0 m	Black	160.0 m	H-01370-02-0-0
	15 mm	5 – 12 mm		5.6 m	Black	112.0 m	H-01370-03-0-0
	20 mm	9 – 20 mm		3.3 m	Black	49.5 m	H-01370-04-0-0
	25 mm	11 – 25 mm		2.6 m	Black	31.2 m	H-01370-05-0-0
Designation	**Joint depth**	**Joint width**	**Delivery**	**Length of roll**	**Colour**	**PU**	**Article number**
GU joint sealing tape BG2/300	10 mm	1 – 4 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	13.0 m	Grey	390.0 m	H-01370-00-0-1
	12 mm	2 – 6 mm		12.0 m	Grey	300.0 m	H-01370-01-0-1
	15 mm	4 – 9 mm		8.0 m	Grey	160.0 m	H-01370-02-0-1
	15 mm	5 – 12 mm		5.6 m	Grey	112.0 m	H-01370-03-0-1
	20 mm	9 – 20 mm		3.3 m	Grey	49.5 m	H-01370-04-0-1
	25 mm	11 – 25 mm		2.6 m	Grey	31.2 m	H-01370-05-0-1

GU joint sealing tape BG2/300

Processing

- **Substrate/joint surface**
  Surface treatment of joints: please remove dust, oil, grease, old sealing material and remnants of mortar from the joint edges
- **Determining the joint widths**
  The joint edges must be parallel. Measure the joint widths and choose the corresponding tape sizes for the joint tolerances that have been determined/are to be expected (if appropriate work with varying tape sizes).
- **Preparing the tape**
  When cutting the tape, make an allowance of at least 1 cm per m. Cut off the over-compressed beginning and end pieces of the roll. Remove the backing from the self-adhesive foil and stick the pre-compressed tape into the joint. Press the self-adhesive side firmly against the joint edge. In doing so, take care to ensure that the tape is not stretched, especially in the case of pieces that are too short. As the tape will pull back to its original length after a time, this can lead to leakage spots.
- **Joints in the tape**
  The individual strips of tape can be extended in the joint by lining up the tapes, which have been cut to exact size, and gently compressing them
- **Working on cross and T joints**
  First stick the tape in the vertical joint from bottom to top. Then position the tapes in the horizontal joints and line it up against the tape in the vertical joint. In doing so, do not stretch the tape, but compress it.

Storage

- Store in the unopened packaging in a cool (+1 °C to +20°C), dry place

Technical appraisal certificate

Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Allgemeines bauaufsichtliches Prüfzeugnis

Prüfzeugnisnummer:	P - NDS04 - 1154
Gegenstand:	Fugendichtungsband „GU Fugendichtband - BG2 / 300" gemäß Bauregelliste A Teil 2 - Ausgabe 2016/1 - Lfd. Nr. 2.10.1.1 als normalentflammbarer Baustoff (Baustoffklasse B2) nach DIN 4102-1: 1998-05
Antragsteller:	Gretsch-Unitas GmbH Baubeschläge Johann-Maus-Straße 3 71254 Ditzingen
Ausstellungsdatum:	4. Oktober 2017
Geltungsdauer bis:	30. November 2020

Aufgrund dieses allgemeinen bauaufsichtlichen Prüfzeugnisses ist der oben genannte Gegenstand im Sinne der Landesbauordnungen verwendbar.

Dieses allgemeine bauaufsichtliche Prüfzeugnis umfasst 4 Seiten.

Auftragsnummer: 175574

Test report

Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Prüfbericht Nr. 176299

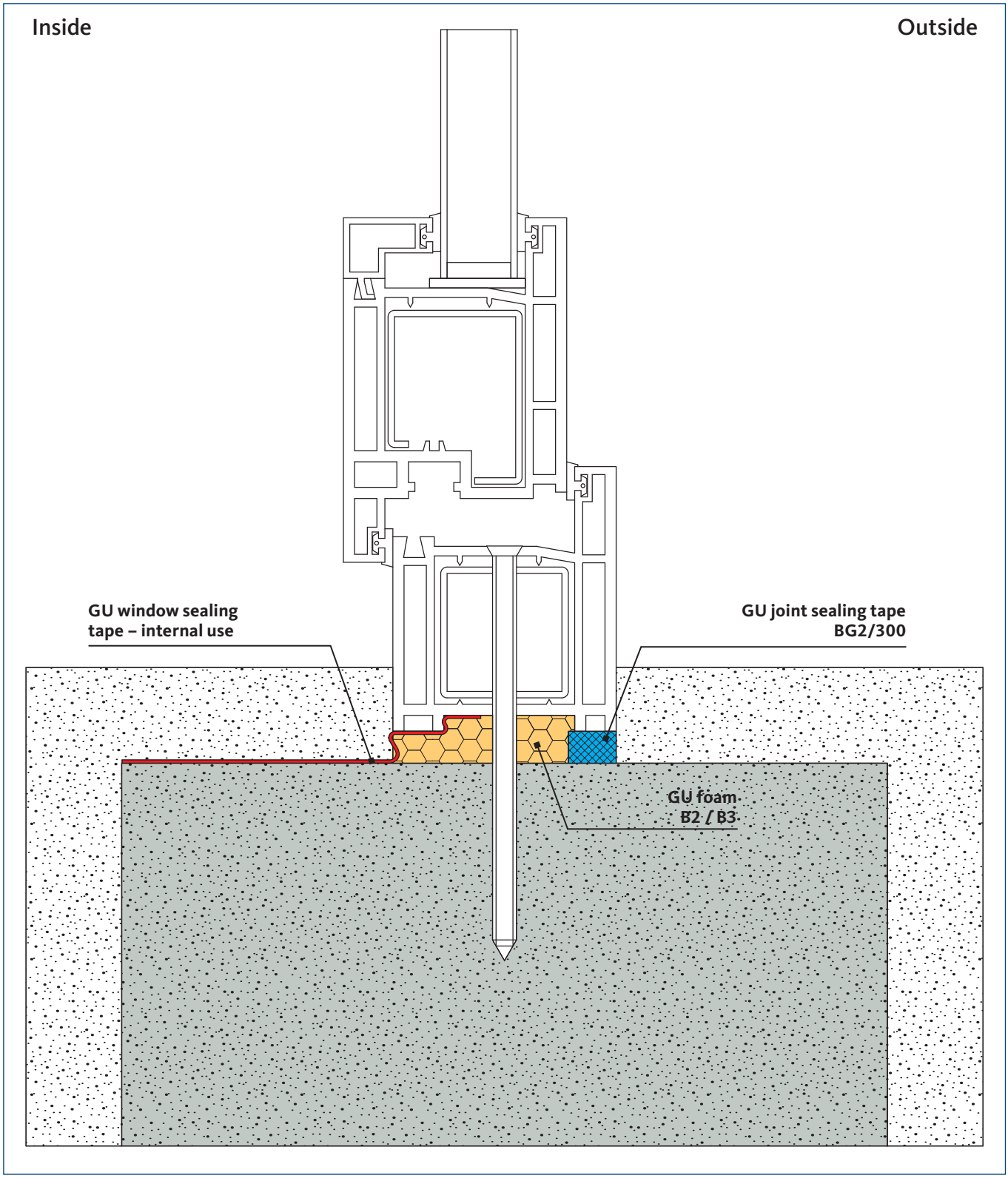
1. Ausfertigung vom 22.11.2017

Auftraggeber	Gretsch-Unitas GmbH Baubeschläge Johann-Maus-Straße 3 71254 Ditzingen
Auftrag vom	09.11.2017
Inhalt des Auftrags	Zusammenfassung der Prüfergebnisse nach DIN 18542 Beanspruchungsgruppe BG2 für das Fugendichtungsband: „GU Fugendichtband - BG2 / 300"
Ausstellungsdatum	22. November 2017
Geltungsdauer bis	30. November 2020

Der Prüfbericht umfasst 5 Seiten.

GU joint sealing tape BG2/300

Installation sketch



GU ultra sealant

When used externally as joint sealing compound

Product description

GU ultra sealant is a high-quality, neutral, one-component, permanently elastic adhesive/sealant based on hybrid polymer with a wide range of application.

Product characteristics

- Very good workability
- Permanently elastic after curing
- Virtually odourless
- Non-corrosive
- Waterproof and resistant to salt water
- Compensates for any unevenness and material stress
- No speckling with porous substrates, e.g. natural stone, ashlar, marble, granite, etc.
- Blister-free curing even at high temperatures
- Very good adhesion to almost any substrate without primer
- Also sticks to moist substrates
- Silicone-, solvent-, halogen-, acid- and isocyanate-free
- Very good coating compatibility in accordance with DIN 52452-A1 (please see remark), wet-on-wet paintable
- Colourfast, weatherproof and UV-resistant

Applications

- Stress-free structural adhesion of e.g. metal, plastic (apart from PE, PP, PTFE and silicone) and hardwoods
- Sealing and adhesion applications in the construction industry
- Structural adhesion of vibrating constructions
- Sealing and adhesion of metal constructions
- Stress-free adhesion / sealing in the area of wagon construction, container construction, shipbuilding, body construction, vehicle construction, caravan construction and apparatus construction
- Sealings for air conditioning and ventilation systems
- Sanitary sealings
- Sealing of weld seams
- Sealing of floor joints

GU ultra sealant

When used externally as joint sealing compound

Technical data and requirements

GU joint sealing compound – external use	Classification and grading	NF / ISO / DIN standard
Base	1 component hybrid polymer	
Consistency	Stable paste	
Curing	Polymerisation through air humidity at room temperature	
Film formation time [1]	Approx. 10 minutes	
Curing speed [1]	2 mm in the first 24 hours	
Shore A – hardness	25 ± 5	DIN 53505
Density	1.45 g/ml	DIN 53479
Thermal stability	–40 °C up to +90 °C	
Recovery	>70%	DIN EN ISO 7389-B
Max. permissible total deformation	25%	DIN EN ISO 11600
Elastic modulus 100%	0.4 N/mm²	DIN EN ISO 8339
Tensile strength	1.3 N/mm²	DIN 53504
Combined tension and shear resistance [2]	0.5 N/mm²	DIN 53504
Percent elongation at failure	900%	DIN 53504
Volume change	–2 up to –3 Vol. %	DIN EN ISO 10563
Building material class	B2 (normally inflammable)	DIN 4102, Part 4

The information is based on fully cured product.
[1] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.
[2] Substrate: AlMgSi1, layer thickness 2 mm, feed rate 10 mm/minute

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU ultra sealant	Soft-pack	600 ml	White	20 pcs	H-01198-00-0-0

GU ultra sealant

When used externally as joint sealing compound

Substrates

- GU ultra sealant has outstanding and normally primer-free adhesion on a large number of substrates, e.g. metal (steel, AlMgSi1, brass, zinc, steel ST 1403, electroplated and fireplated steel, AlCuMg1), plastics (polystyrol, polycarbonate, PVC, ABS, polyamide, PMMA and GFK – not to PE, PP, PTFE and silicone), polystyrene, cork, enamel, concrete, glass, HPL and wood.
- Warning: PMMA and polycarbonate must not be glued under tension, or otherwise stress cracks will form. Preliminary testing is strictly recommended for polycarbonate.
- In general, care should be taken with plastics to ensure that release agents used in manufacture or protective films used for transport are removed before gluing, leaving no residue, as these can sometimes have a significant negative effect on adhesion
- With plasticised synthetic materials (e.g. soft PVC, butyl rubber, EPDM and APTK) may exhibit incompatibilities such as discolouration and loss of adhesion. Suitability for use with the system should be tested in such cases. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease. Dry and clean substrates are particularly suitable. These provide the best adhesion values.
- GU ultra sealant also sticks to moist substrates, and even underwater. Adhesion achieved in this way may, however, be weaker than adhesion to dry and clean substrates.
- Pretreatment: porous substrates that are subject to relatively high water loads should be pretreated with GU primer if appropriate

Processing

- **It is advisable to carry out an initial adhesion and compatibility test on every substrate**
- **Application method**
  – GU cartridges and soft-pack guns
- **Processing temperature**
  – +0°C (frost-free) up to +40°C (ambient temperature)
  – **+0°C (frost-free) up to +35°C (temperature of adhesive surface)**
- Curing occurs from outside to inside as a result of air humidity at room temperature and slows over time. At low temperatures and/or low air humidity curing will be significantly slower!

Joint dimensions

- **Minimum width**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Maximum width**
  – for gluing: 10 mm
  – for sealing: 30 mm
- **Minimum depth**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Recommended**
  – joint width = 2 x joint depth (> 6 mm width)
  – joint width = 1 x joint depth (< 6 mm width)

Cleaning

- Can be removed mechanically using GU PVC cleaner or GU aluminium cleaner following curing

Smoothing

- With GU SMOOTHING AGENT or soap solution prior to film formation

Safety instructions

- Observe standard workplace hygiene

GU ultra sealant

When used externally as joint sealing compound

Note

GU ultra sealant is paintable.

According to the applicable standards (e.g. DIN 18540), elastic sealing compounds should not be completely coated as cracks may form in the inelastic coating in the event of stress or movement. The drying time of alkyd resin paints may be affected.

Due to the variety of coating systems available on the market, we recommend carrying out compatibility and adhesion tests in advance. Any soap residue from the smoothing water should be removed prior to coating, as this can impair the adhesion of the coating.

GU sealing cord

with Kompri hollow-core

Product description / Applications

GU sealing cord, made of closed cell PE foam with a special surface, is used to backfill construction and expansion joints and is particularly suitable for joint, window and door seals and for soundproofing. Due to its expandable Kompri hollow-core, it is able to cover a wide range of very different joint widths.

Product characteristics

- With compressible hollow core for connecting joints, fits in even extremely narrow joints
- Prevents adhesion to all 3 joint-flanks
- Rot-proof
- Special closed cell surface prevents formation of gas and bubbles after rinsing
- Water-repellent (does not draw in moisture)
- Good compatibility with GU joint sealing compounds (internal and external)
- High elasticity
- Very flexible
- Easy to fit
- Pressure-resistant
- Convex limitation to joint depth
- No discolouration of the joint sealant
- Odourless, physiologically inert and chemically neutral

GU sealing cord

with Kompri hollow-core

Technical data and requirements

GU sealing cord	Classification and grading	NF / ISO / DIN standard
Cell structure	Closed-cell polyethylene foam	
Production	Completely free of CFCs and HCFCs (ODP=0)	
Water absorption	< 0.5 Vol. %	DIN 53495
Thermal stability	–40 °C up to +100 °C	
Building material class	B1 (hardly inflammable)	DIN 4102

Order information

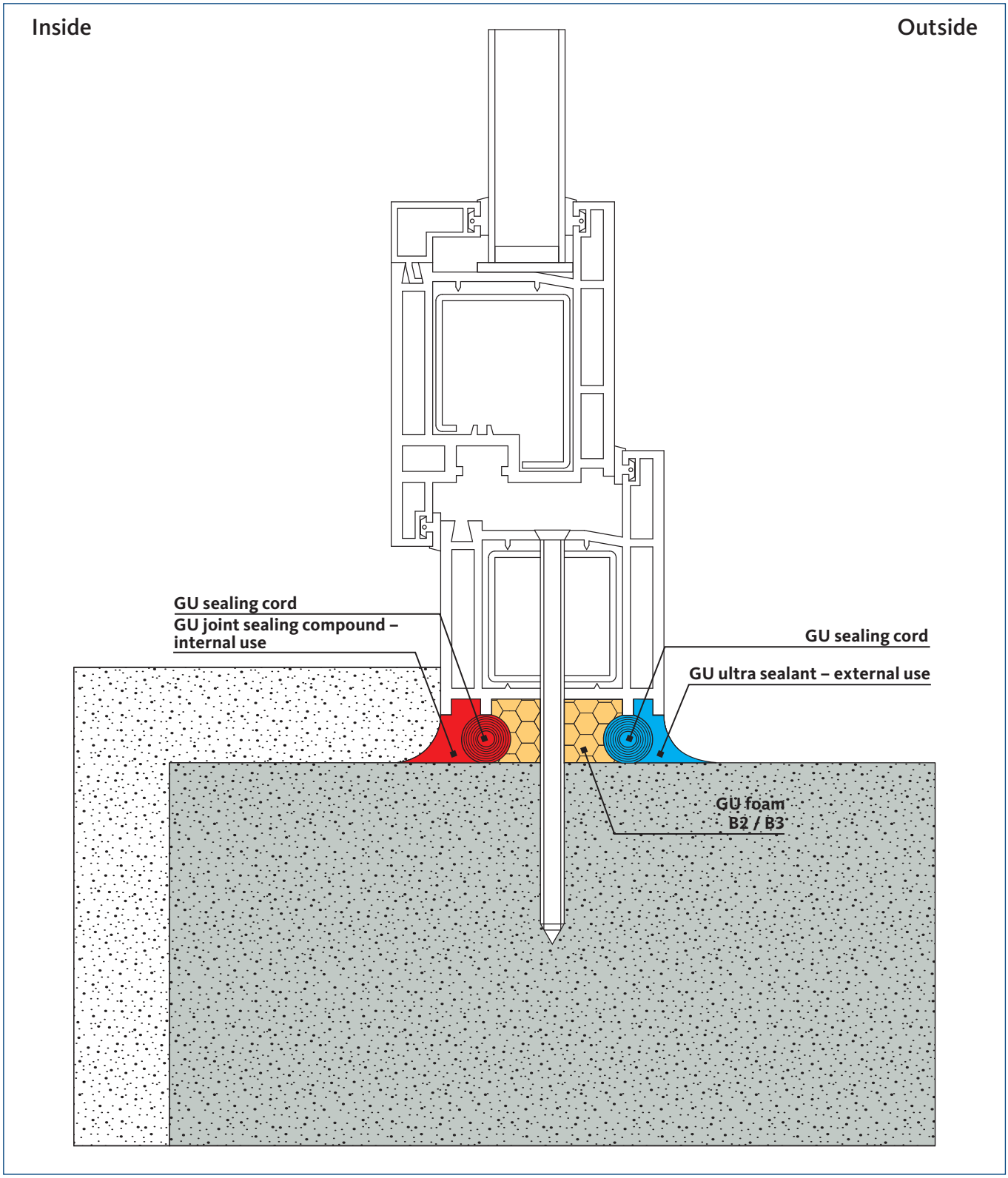
Designation	Packaging	Size	Colour	PU	Article number
GU sealing cord Full material without hollow core	Rollers	10 mm	Grey	1,150 m	H-00985-10-0-0
GU sealing cord with Kompri hollow-core, closed cell	Rollers	15 mm	Grey	550 m	H-00985-15-0-0
		20 mm	Grey	350 m	H-00985-20-0-0
		25 mm	Grey	200 m	H-00985-25-0-0
		30 mm	Grey	160 m	H-00985-30-0-0
		40 mm	Grey	135 m	H-00985-40-0-0
		50 mm	Grey	84 m	H-00985-50-0-0

Processing

- GU sealing cord is packaged in dispenser boxes and is easy to fit
- It is recommended that the cord is installed using blunt tools to avoid damaging the surface
- GU sealing cord should only be used for cold joints (normal construction joints)
- The required profile thickness is usually 20–25% above the joint width

GU ultra sealant – external use / GU sealing cord

Installation sketch



GU ultra sealant – external use / GU sealing cord

Building component testing

Bauteilprüfung

Luftdichtheit und Schlagregendichtheit eines Abdichtungssystems zwischen Fenster und Baukörper im Neuzustand sowie nach simulierten Kurzzeitbelastungen

Prüfbericht
Nr. 13-002481-PR01
(PB-E03-09-de-01)

ift ROSENHEIM

Auftraggeber: Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
Deutschland

Produkt/Bauteil: Abdichtungssystem zwischen Fenster und Baukörper
Dämmung: ⊖ GU Pistolenschaum bzw. Profil-Pistolenschaum
Abdichtung: ⊖ GU Fugendichtstoff Innen + GU Rundschnur, im Brüstungsbereich: GU Fensterdichtband Innen + GU Ultra Dichtmasse
⊖ GU Fugendichtstoff Außen + GU Rundschnur, im Brüstungsbereich: GU Fensterdichtband Außen + GU Ultra Dichtmasse

Bezeichnung: Verputztes Mauerwerk aus Hochlochziegel mit stumpfer Leibungsausbildung. Kunststofffenster mit Stahlarmierung im Flügel- und Blendrahmen.
Befestigung zum Baukörper umlaufend mit Rahmendübel. Befestigungsabstände ≤ 700 mm.
Abdichtung raum- und außenseitig zwischen Blendrahmen und glattgestrichener Mauerleibung. Verarbeitung nach den Vorgaben des Auftraggebers.

Einbausituation/Randbedingungen: Außen Aluminium-Fensterbank mit aufgesteckten Endstücken.
Raumseitig luftdichter und außenseitig schlagregendichter Fugenabschluss zwischen Außenwand und Fenster bzw. Fenstertüren aus weißen PVC-Hohlkammerprofilen mit gleichwertiger Ausführung, wie oben beschrieben.

Einsatzgebiet:

Besonderheiten: -/-

Ergebnisse *)

Luftdurchlässigkeit bis zu ± 1000 Pa, im Neuzustand	a < 0,1 m³/(m h daPa^2/3)
Luftdurchlässigkeit bis zu ± 1000 Pa, nach simulierten Kurzzeitbelastungen (Temperatur, Wind, Nutzung)	a < 0,1 m³/(m h daPa^2/3)
Schlagregendichtheit bis 600 Pa, nach simulierten Kurzzeitbelastungen (Temperatur, Wind, Nutzung)	kein Wassereintritt

*) Einzelergebnisse siehe Prüfbericht Abschnitt 3

ift Rosenheim
13.08.2013

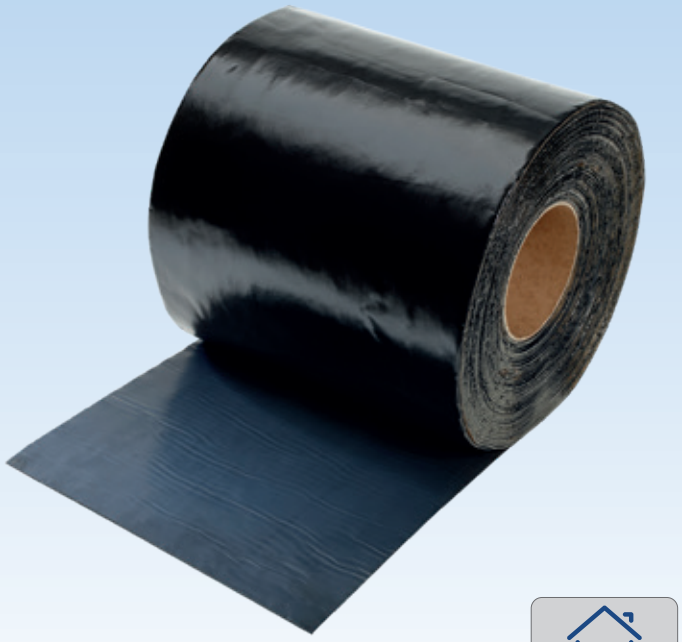
Karin Lieb, Dipl.-Ing. (FH)
Prüfstellenleiter
Baustoffe & Hallenbau

Wolfgang Jehl, Dipl.-Ing. (FH)
Produktingenieur
Baustoffe & Hallenbau

Grundlagen
Darstellung
Verwendungshinweise
Gültigkeit
Veröffentlichungshinweise
Inhalt

GU KSK sheet for structural sealing

with perforated strip



Product description

GU KSK sheet for structural sealing is a self-adhesive, flexible, crack-bridging sealing membrane made of polymer-modified bitumen which is applied to one side of a tear-resistant, cross-laminated HDPE carrier film. The 50-mm wide vulcanisation strip is made of pure compound. This serves to ensure better bonding between the materials by sticking compound on to compound, thus ensuring even better sealing.

Applications

GU KSK sheet for structural sealing protects building components in contact with the ground from moisture in the soil (capillary water, hygroscopic water), non-standing gravitational water (DIN 18195-4) and non-pressurising water (DIN 18195-5, moderate stress), and can be used as a water vapour barrier in the soil region below screed floors. It can be used on vertical and horizontal surfaces and on all mineral substrates such as sandy limestone, brick, concrete blocks, concrete, cellular concrete, plaster and screed. Moreover, the product can be used as a damp course against rising damp to form Z or L flashing in veneer masonry.

Product characteristics

- Clean, simple and hence time-saving to work with
- Water vapour transmission value sd = approx. 150 m
- Sealing, vapour-retarding effect
- Immediately watertight and impermeable to driving rain
- Tear-proof and crack-bridging
- Solvent-free
- No contamination of groundwater

Application examples

- Basements of residential and commercial buildings
- Foundations
- Floor panels
- Underground car parks
- Balconies
- Terraces
- Wetrooms
- Supporting walls
- To form Z or L flashing in veneer masonry
- Not suitable for sealing flat roofs and tanks

GU KSK sheet for structural sealing

with perforated strip

Technical data and requirements

GU KSK sheet for structural sealing	Classification and grading		NF / ISO / DIN standard
Weight	Approx. 1.6 kg/m²		
Overall width	1,000 mm		
Width of vulcanisation strip	50 mm		
Total thickness	Approx. 1.6 mm		
Processing temperature	–5 °C up to +30 °C		
Impermeability to rain	Immediately		
Heat resistance	Water-tight; ≥ +70 °C, duration of storage 12 weeks		DIN EN 1296, DIN EN 1928
Cold bending behaviour	at –30 °C free of cracks		DIN EN 1109
Impermeability to water Water pressure 4 bar, test duration 24 h	Water-tight		EN 1928, procedure B
Water vapour transmission properties	sd = approx. 150 m		DIN 1931, procedure B
Maximum tensile force	Longitudinal ≥ 200 N / 50 mm	Transverse ≥ 200 N / 50 mm	EN 12311-2, procedure A
Elongation at maximum tensile force	Longitudinal ≥ 270%	Transverse ≥ 240%	EN 12311-2, procedure A
Building material class	Euroclass E		DIN EN 13501-1

Order information

Designation	Length of roll	Width of roll	Colour	PU	Article number
GU KSK sheet for structural sealing with perforated strip	15 m	50 mm	Black	15 m	H-01134-05-0-0
	15 m	75 mm	Black	15 m	H-01134-07-0-0
	15 m	100 mm	Black	15 m	H-01134-10-0-0
	15 m	150 mm	Black	15 m	H-01134-15-0-0
	15 m	200 mm	Black	15 m	H-01134-20-0-0
	15 m	250 mm	Black	15 m	H-01134-25-0-0
	15 m	300 mm	Black	15 m	H-01134-30-0-0
	15 m	350 mm	Black	15 m	H-01134-35-0-0
	15 m	400 mm	Black	15 m	H-01134-40-0-0
	15 m	500 mm	Black	15 m	H-01134-50-0-0
	15 m	1000 mm	Black	15 m	H-01134-00-0-0

GU KSK sheet for structural sealing

with perforated strip

Subsurface preparation

- The substrate must be prepared in accordance with DIN 18195-3 (waterproofing of buildings) and DIN 1053 (masonry construction). Substrates must be stable, level, suitable for coating, frost-free, and free of oil, grease, bitumen, nests, gaping cracks, ridges, impurities such as dust, dirt, remains of mortar and sinter layers. Grooves must be rounded and edges chamfered. Work can be carried out on dry or slightly moist substrates.
- Mineral substrates must be primed with an undercoat such as GU primer. No primer is required for metal and plastic surfaces. Wet substrates, which can be identified by marked darkening and a film of moisture on the surface, must first be sealed off against moisture penetration from the back using a slurry seal.
- Water must not get between the substrate and the seal during the construction phase, for which reason a mortar or slurry seal suitable for temporary sealing should be used, if appropriate
- Open butt joints of up to 5 mm should be filled and levelled with a scratch coat of thin plaster. Bubble formation as a result of deep pores or cavities in the concrete should also be prevented by applying a scratch coat. The scratch coat must be dry before beginning the sealing works. Open butt joints or depressions that are larger than 5 mm should be filled with a barrier mortar.

GU KSK sheet for structural sealing

with perforated strip

Processing

1. Primer

- Apply undiluted GU primer with a paintbrush evenly to the dry or slightly moist substrate. Once the primer has dried sufficiently, apply the GU KSK sheet for structural sealing. Before doing so, stick a small strip of the sealing sheet to the primer, press firmly and then tear off again. If more than 50% of the primer comes away from the substrate, there is not yet sufficient adhesion. In this case, gluing the sealing sheet must wait until a later time. Sufficient adhesion has been achieved if the sealing sheet can only be detached from the substrate with exertion.
- If gluing is to be carried out in the morning, be aware of the potential for dew formation on the primer. This can occur in the event of unfavourable climate conditions, especially where the wall meets the ground. As gluing cannot be carried out on a dewy surface, a dry substrate must be created, e.g. by drying/evaporation.

2. Preparation and application

- Using a sharp knife, cut the GU KSK sheet for structural sealing to the necessary size and length on a board (backing paper downwards) and then roll up again
- The GU KSK sheet for structural sealing is then glued to the substrate over its entire surface by simultaneously removing the backing paper. In wall areas, apply vertically from top to bottom.

  In the process, observe the following steps:

  – At the start of the membrane, remove approx. 30 cm of the backing paper slowly and evenly
  – Place the sticky side onto the substrate and stick it down. Continue to remove the backing paper evenly.
  – In the same work step, press the membrane down using a brush or cloth, for example, starting from the centre, to avoid creases and air bubbles between the substrate and the film and to achieve good, instantaneous adhesion
  – Next, press the entire membrane down firmly, e.g. with a rubber roller
  – Before applying the subsequent membranes, remove the protective film from the vulcanisation strip
  – Apply the subsequent membrane with an overlap of approx. 10 cm, and at least 8 cm. A 10 cm scale is provided on the membrane. Take particular care when starting to roll these overlap regions.
  – After approx. 24 hours, the GU KSK structural sheet for sealing will exhibit 100% adhesion to the substrate

3. Vertical wall sealing

- The upper end of the web should be secured to vertical surfaces using plastering guides

4. Gluing insulation boards and drainage panels

- After sealing with GU KSK sheet for structural sealing, both insulation boards and drainage panels can be attached by spot gluing

5. Filling in the construction pit

- After completing the sealing and insulation operations, the construction trench should be filled in within 72 hours

GU KSK sheet for structural sealing

with perforated strip

Processing hints when using for Z or L flashing in veneer masonry

- Using a sharp knife, cut the GU KSK sheet for structural sealing into lengths of approx. 1 m on a board. With the long side upwards, first glue it to the masonry backup, which has been undercoated with GU primer.
- At the start of the membrane, remove approx. 10–15 cm of the backing paper slowly and evenly
- Arrange the sticky side of the sealing film on the backup and attach by pressing gently
- Glue to the substrate over its entire surface by simultaneously removing the backing paper. Press the sealing sheet down using a brush or cloth, for example, starting from the centre, to avoid creases and air bubbles between the substrate and the film and to achieve good, instantaneous adhesion.
- Next, press the entire membrane down firmly, e.g. with a rubber roller
- Before applying the subsequent membranes, remove the protective film from the vulcanisation strip
- Apply the subsequent membrane with an overlap of approx. 10 cm, and at least 8 cm. A 10 cm scale is provided on the membrane. Take particular care when starting to roll these overlap regions.
- For veneer masonry, the sealing sheet is positioned high behind the veneer on the outside of the internal wall and incorporated into the masonry, if appropriate (Z flashing)
- When using for Z flashing, a sufficient overlap (≥ 10 cm) should be observed at the connection to the external basement seal
- When using for L flashing, the cut edge of the sealing film in the joint area of the veneer should be folded over in such a way that adhesive compound sticks to adhesive compound
- Horizontal forces in the walls (e.g. due to earth pressure) should be eliminated
- The load of the masonry on the sealing sheet should not exceed 0.2 MN/m^2
- The seating for the veneer should be horizontal and without irregularities that would damage the membrane

Storage/transport

- GU KSK sheet for structural sealing must be transported and stored upright
- Prior to use, the sealing sheet must be protected from pressure, direct sunlight, frost, heat and moisture
- Do not store below +5 °C or over +30 °C
- Storage conditions that are too cool or too warm have an unfavourable effect on the processing characteristics of GU KSK sheet for structural sealing
- Do not remove the protective box until ready to use

Disposal

- EAK code no. 08 04 10 (adhesive and sealant waste) or 17 03 02 (bituminous compounds)
- The waste codes stated are recommended based on the intended use of the product. Depending on the circumstances of the user's specific use and disposal situation, other waste codes may be assigned.

Coverage

- Depending on application, approx. 1.1 m^2 per m^2 of wall/floor surface

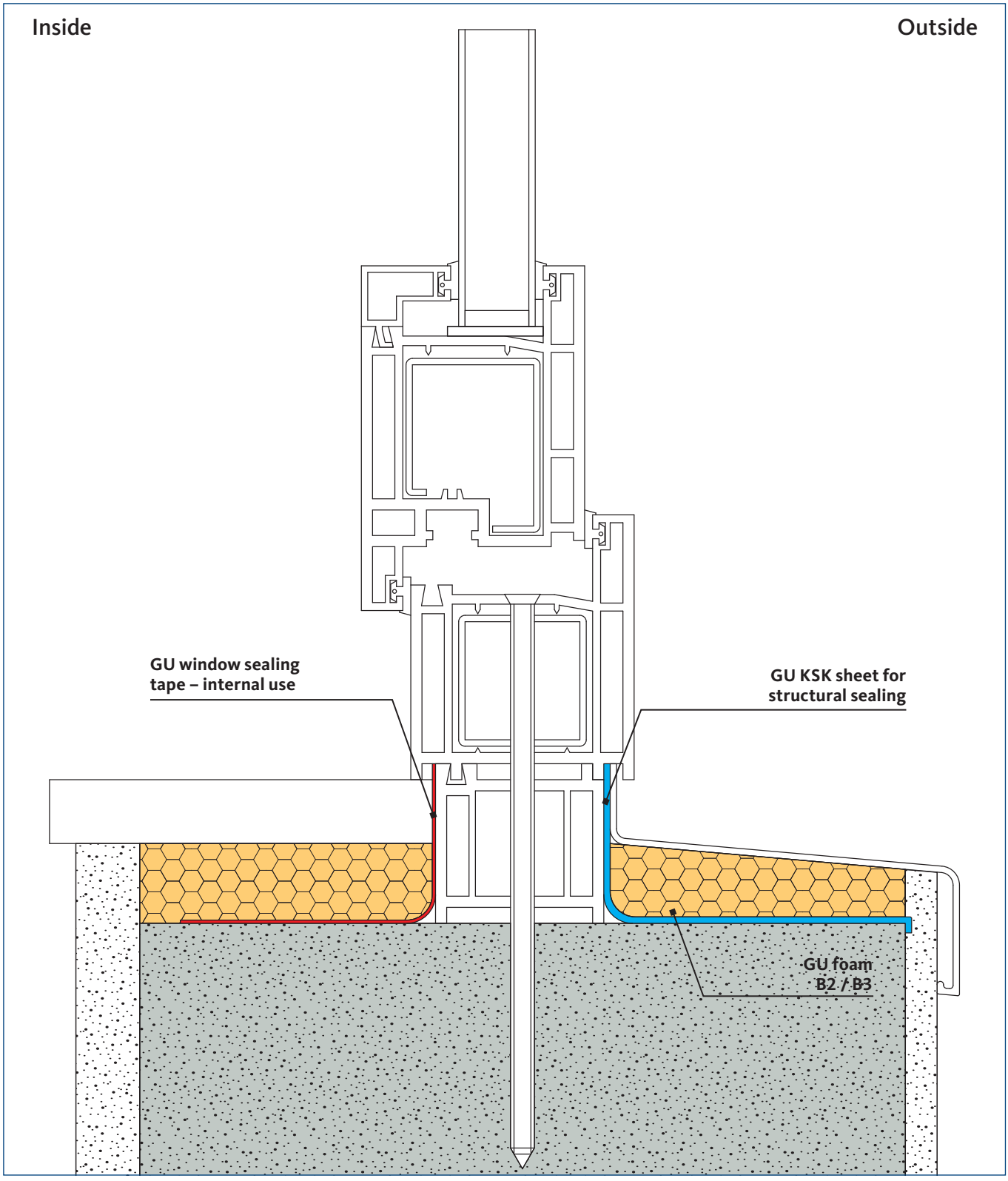
Workplace safety

- Wear suitable protective clothing

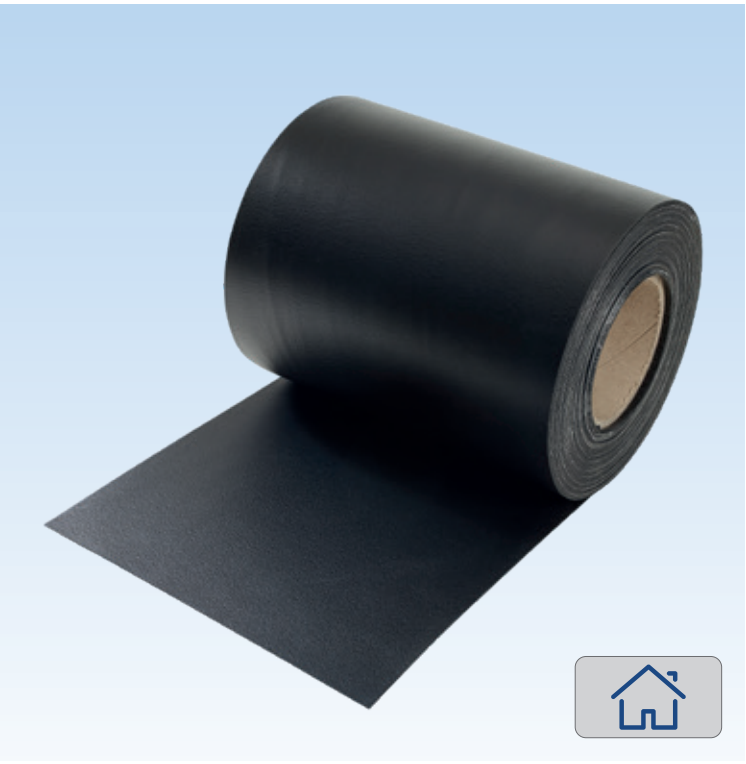
GU KSK sheet for structural sealing

with perforated strip

Installation sketch



GU EPDM sealing sheet – external use



Product description

GU EPDM sealing sheet is available in 0.75 mm and 1.0 mm thicknesses and enables you, in accordance with DIN 4108, to make windows and façade connections durably air-tight and watertight or even impervious to water vapour, with the required permanent elasticity. When the German Energy Saving Ordinance (Energieeinsparverordnung, EnEV) came into force, it set even more stringent requirements in terms of sealing connecting joints in the building envelope.

These required values can also be tested at any time (blower door test).

Applications

The EPDM sealing sheet is primarily used for bridging and sealing expansion joints of all kinds in window installation and façade construction.

Product characteristics

- Material approved by EN 13859-2 and EN 14909
- Zero environmental impact
- Permanently flexible over a temperature range of –40 °C to +100 °C
- Resistant to aging, ozone and UV
- Compatible with bitumen
- Resistant to a wide range of chemical and mechanical effects
- Neutral behaviour with the majority of standard building materials
- No problems from plasticisers
- GU butyl sealing sheet (internal) and GU EPDM sealing sheet (external) are so well matched to one another in terms of resistance to water vapour diffusion that even testing climate conditions are reliably managed
- No additional mechanical fixing of the membranes is required (note the usage guidelines for the adhesive)
- Prefabricating corners and shaped parts or entire sections at the factory reduces processing times to a minimum and enables efficient, well priced and above all reliable sealing of all crucial locations

Processing

- Do not glue or fasten the material under tension; always ensure tension-free installation
- When gluing, ensure that the material (and substrate) is clean, dry and free of oils, greases and release agents (e.g. silicone spray)
- When working with the self-adhesive GU EPDM sealing sheet – external, observe the processing guidelines for gluing foils

GU EPDM sealing sheet – external use

Technical data and requirements

GU EPDM sealing sheet – external use	Classification and grading	NF / ISO / DIN standard
Thickness	0.75/1.0 mm ± 0.15	DIN EN 1849-2
Length	≥ 20 m	
Width	150–1300 mm ± 0.2%	
Straightness	Passed	
Grammage	950, 1250 g/m² ± 10%	
Fire behaviour	Class E	DIN EN 13501-1
Resistance against water penetration	W1	EN 1928, procedure B
Water vapour transmission properties μ	60,000 ± 20,000	DIN 1931
Resistance to air infiltration (m² x h x 50 Pa)	≤ 0.1 m³	DIN EN 12114
Maximum tensile force	≥ 260, ≥ 350 N/50 mm	DIN EN 12311-1
Elongation at maximum tensile force	≥ 500%	DIN EN 12311-1
Tear resistance	≥ 80, ≥ 90	DIN EN 12310-1
Dimensional change after warm storage	≤ 0.5%	DIN EN 1107-2
Cold bending behaviour	≤ –30 °C	DIN EN 1109
Artificial aging as a combination of permanent exposure both to UV radiation and to increased temperature:		
Tensile strength	306 N/50 mm ± 45 414 N/50 mm ± 67	
Tensile extension	450% ± 15%	
Resistance against water penetration	W1	

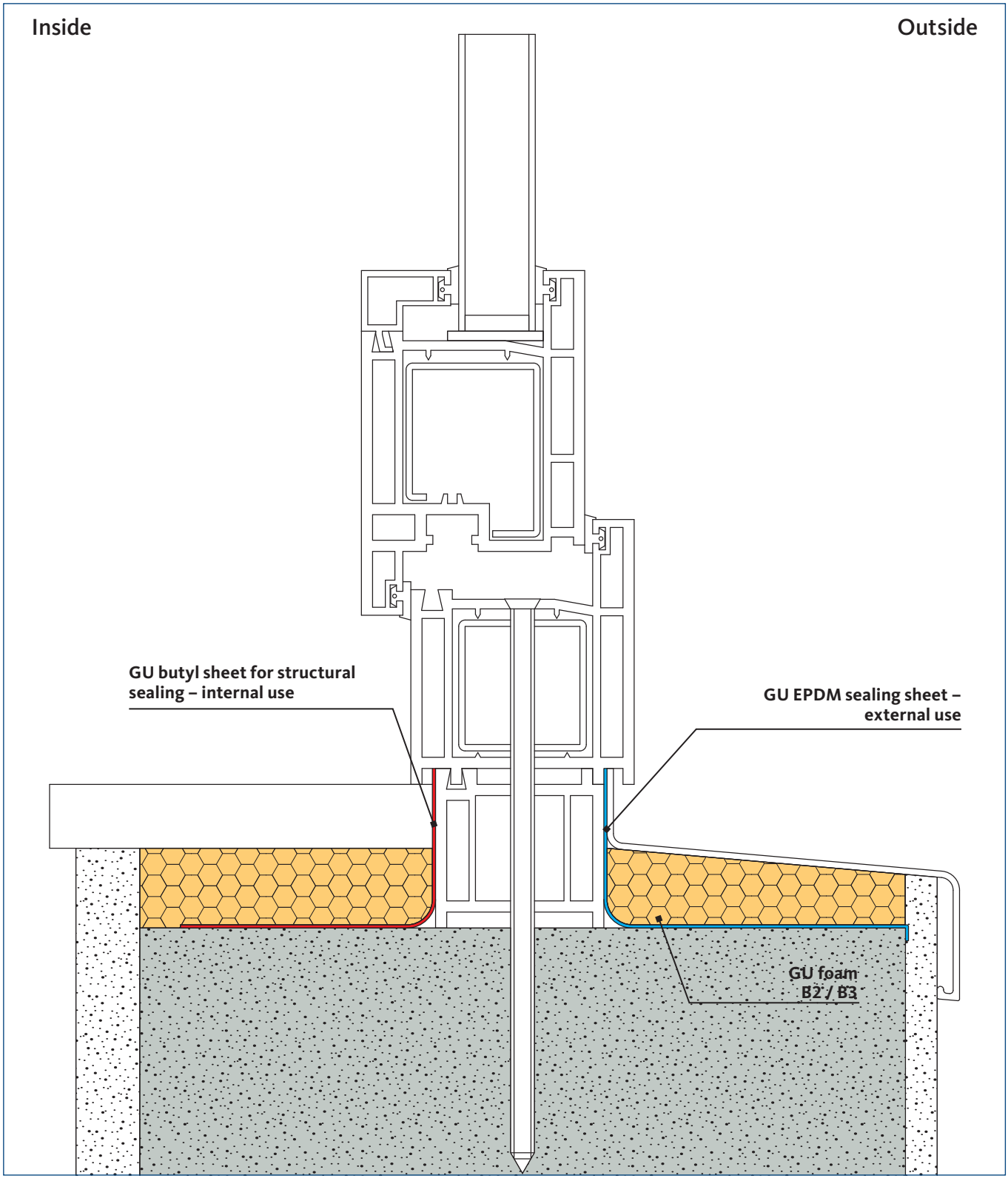
Order information

Designation	Thickness	Width	Colour	PU	Article number
GU EPDM sealing sheet – external use with SK butyl strip on one side	0.75 mm	100 mm	Black	20 m	H-01858-10-0-0
	0.75 mm	150 mm	Black	20 m	H-01858-15-0-0
	0.75 mm	200 mm	Black	20 m	H-01858-20-0-0
	0.75 mm	250 mm	Black	20 m	H-01858-25-0-0
	0.75 mm	300 mm	Black	20 m	H-01858-30-0-0
	0.75 mm	350 mm	Black	20 m	H-01858-35-0-0
	0.75 mm	400 mm	Black	20 m	H-01858-40-0-0
	1.0 mm	100 mm	Black	20 m	H-01859-10-0-0
	1.0 mm	150 mm	Black	20 m	H-01859-15-0-0
	1.0 mm	200 mm	Black	20 m	H-01859-20-0-0
	1.0 mm	250 mm	Black	20 m	H-01859-25-0-0
	1.0 mm	300 mm	Black	20 m	H-01859-30-0-0
	1.0 mm	350 mm	Black	20 m	H-01859-35-0-0
GU EPDM sealing sheet – external use without SK butyl strip	0.75 mm	150 mm	Black	20 m	H-01473-15-0-0
	0.75 mm	200 mm	Black	20 m	H-01473-20-0-0
	0.75 mm	250 mm	Black	20 m	H-01473-25-0-0
	0.75 mm	300 mm	Black	20 m	H-01473-30-0-0
	0.75 mm	400 mm	Black	20 m	H-01473-40-0-0
	0.75 mm	500 mm	Black	20 m	H-01473-50-0-0
	0.75 mm	1300 mm	Black	20 m	H-01473-13-0-0
	1.0 mm	150 mm	Black	20 m	H-01475-15-0-0
	1.0 mm	200 mm	Black	20 m	H-01475-20-0-0
	1.0 mm	250 mm	Black	20 m	H-01475-25-0-0
	1.0 mm	300 mm	Black	20 m	H-01475-30-0-0
	1.0 mm	400 mm	Black	20 m	H-01475-40-0-0
	1.0 mm	500 mm	Black	20 m	H-01475-50-0-0
	1.0 mm	1300 mm	Black	20 m	H-01475-13-0-0

Other dimensions and thicknesses available on request.

GU EPDM sealing sheet – external use

Installation sketch



GU EPDM sealing sheet – external use

Guidelines for gluing films with self-adhesive edges made of butyl

- The self-adhesive edge is only suitable for smooth substrates. The surface of the substrate to be glued must be dry and free of dust and grease. Any release agents present should be removed. Depending on the finish of the materials and surfaces, the glued surfaces should be ground; it may also be advisable to prime the glued surfaces with GU primer.
- Absorbent porous substrates (concrete/timber) must always be primed
- Gluing with a butyl self-adhesive edge is a contact adhesion method, the adjustment options are therefore very limited and should be avoided whenever possible
- Glue the EPDM films without tension, always applying pressure to the full surface of the adhesive edge using the GU pressure roller
- The optimum adhesive bond is achieved after 2–3 days, and an assessment should therefore only be performed once this period has elapsed

Storage:

- At midsummer temperatures, store the rolls in a cool place and if gluing is to be carried out at low temperatures, store rolls in a temperate environment, at a temperature of at least + 15°C

During the installation period:

The adhesive bonds are often subjected to critical loads during this period. This particularly applies if, in addition to being glued on one side, the films are exposed to additional wind loads and/or temperature increases, e.g. due to solar irradiation. The adhesive bonds must only be exposed to very light shearing loads, exposure to loads due to formwork is not permitted.

As the film is glued on one side in the first instance, this one edge bond must initially be able to carry the entire weight of the film. As this represents an extremely unfavourable loading situation, the second film edge must then also be directly glued or fastened.

Gluing the film in the final condition:

- The weight of the film must be permanently supported by the two edge bonds. If these adhesive bonds are exposed to higher temperatures (over 35°C), it must be clarified beforehand whether an additional fixing is to be used.
- The butyl edge bond and the film material are highly resistant to ageing and weather

GU installation set for Lift&Slide elements

Product description

The GU-thermostep threshold, profile extension and installation kit have been perfectly harmonised to produce a complete system – they therefore not only satisfy all energy saving criteria defined in the relevant regulations, but also the need for a high degree of living comfort.

Applications

Sealing of components below ground level, such as basement walls and floor slabs. Against ground moisture (capillary water, retained water) and non-accumulating seepage water (with reference to DIN 18195, part 4). Sealing of balconies and patios in the outdoor areas.

Note regarding application

For a flush connection of frame profile and drip rail, the drip rail has to be 12 mm milled or sawn to ensure a reliable seal is possible.

Product characteristics

- System tested by ift-Rosenheim
- Self-adhesive, simple to work with, immediately functioning
- Resistant to aging and weathering, UV-stabilised
- High resistance to tear and tear propagation due to cross-lamination of the film
- Water pressure tight up to 2 kPa (foil side)
- Solvent-free, bitumen-free, bitumen-compatible, non-corrosive
- Smooth foil surface with fleece, suitable for plastering over
- Thermal stability –40°C up to +90°C
- Fire behaviour B2 (Euro class E)
- Compound material butyl, sd-value 150 m and webbing sd-value 0.5 m
- Material thickness 1.0 mm ± 0.2 mm

Processing

- Pre-treat absorbent substrates with GU primer (bonding agent). Apply approx. 100 g/m² with a brush or similar and allow to dry well. The drying time depends on the temperature and the air humidity.
- The surfaces to be glued on the component, the frame and the masonry must be clean and free of dust, grease, ice, standing water and separating agents

GU installation set for Lift&Slide elements

Order information / individual components

Designation				Article number
Structural connection for GU-thermostep thresholds	GU installation set for L&S doors	Butyl tape 7.5 m Mounting corners, 1 pair		H-01525-00-0-0
	GU mounting corners for L&S doors	400 x 200 mm	10 pair	H-01526-00-0-0
	GU butyl external tape	200 mm	30 m	H-01527-00-0-0
	GU butyl external tape	300 mm	50 m	H-01527-30-0-0

Test report

Nachweis
Bestimmung der Wasserdichtheit nach DIN EN 1928

Prüfbericht
Nr. 16-000650-PR01
(PB-K03-09-de-01)

ift ROSENHEIM

Auftraggeber: Gretsch-Unitas GmbH Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
Deutschland

Produkt: Abdichtungsband
Bezeichnung: GU Montage-Butyl-Außenband
Materialbasis: Polyisobutylen mit hochreißfester HDPE-Folie
Dicke: 1,2 mm
Bemerkung: Prüfbedingung Verfahren A nach DIN EN 1928

Gemessen nach den Vorgaben der DIN EN 1928 beträgt für das Abdichtungsband GU Montage-Butyl-Außenband, die

Wasserdichtheit 2 kPa

Grundlagen
DIN EN 1928 : 2000
Bitumen, Kunststoff- und Elastomerbahnen für Dachabdichtungen – Bestimmung der Wasserdichtheit
Prüfbericht Nr. 16-000650-PR01 (PB-K03-09-de-01) vom 07.04.2016

Darstellung

Verwendungshinweise
Dieser Prüfbericht dient zum Nachweis der Wasserdampfdurchlässigkeit und Wasserdichtheit des geprüften Gegenstandes.

Gültigkeit
Die generierten Daten und Einzelergebnisse beziehen sich ausschließlich auf den geprüften/ beschriebenen Probekörper.
Die Prüfung ermöglicht keine Aussage über weitere Belastungs- und qualitätsbestimmende Eigenschaften des verbauten Produkts, insbesondere Witterungs- und Alterungseinflüsse wurden nicht berücksichtigt.

Veröffentlichungshinweise
Es gilt das ift-Merkblatt „Hinweise zur Benutzung von ift-Prüfberichten".
Das Deckblatt kann als Kurzfassung verwendet werden.
Der Nachweis umfasst insgesamt 5 Seiten.
1 Gegenstand
2 Durchführung
3 Einzelergebnisse
4 Zusammenfassung

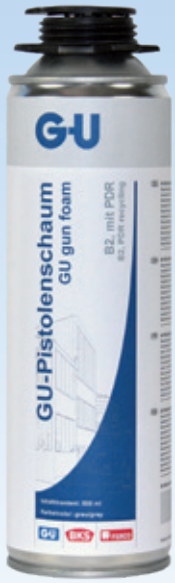
ift Rosenheim
12.04.2016

Christian Neudecker
Stv. Prüfstellenleiter
Labor Materialprüfung

Prüfung und Kalibrierung – EN ISO/IEC 17025

GU gun foam

B2, with PDR



Product description

GU gun foam is a ready-to-use, one-component, self-expanding polyurethane rigid foam for use with a corresponding dispensing gun. The special formulation ensures extremely good yield.

Product characteristics

- Solvent-free
- Outstanding dimensional stability, i.e. no loss of volume and only slight post-expansion once curing is completed
- Excellent adhesion to nearly all building substrates (except PE, PP, PTFE and silicones)
- Better sound and thermal insulation than mineral wool, cork and fibreglass
- Outstanding application properties since the dispensing gun ensures exact and sparing application
- Quick to cure thoroughly
- Resistant to a wide range of solvents, paints and chemicals
- Resistant to aging, non-degradable, but not UV-resistant
- Waterproof (but not watertight)
- After curing, the foam can be plastered, painted or pasted over
- Tested according to "EC1 plus – very low emission"

Applications

- Soundproofing and insulation for refrigerated wagon and cold room construction
- Fixing and filling for machines and metal structures, as well as for electrical installation
- Installation and foam filling of window and door frames and window sills
- Sound insulation
- Filling cavities with foam, e.g. masonry openings, attic conversions, door frames, pipe ducts, shutter boxes etc.

GU gun foam

B2, with PDR

Technical data and requirements

GU gun foam	Classification and grading	NF / ISO / DIN standard
Base	Polyurethane	
Consistency	Stable foam (does not sag)	
Bulk density	Approx. 18 kg/m³	DIN EN ISO 845
Curing method	Curing through air humidity at room temperature	
Curing speed [1] [2]	Approx. 30 minutes	
Tack-free time of the surface [1] [2]	Approx. 8 minutes	
Can be cut after [1] [2]	Approx. 40 minutes	
Removal of frame spreaders [1] [2]	Approx. 2 hours	
Fully load-bearing [1] [2]	Approx. 12 hours	
Foam yield [1] [2]	Approx. 42 litres per litre for free foaming	
Post-expansion	Low	
Pore structure	Fine	
Shear strength	0.14 N/mm²	DIN 53427
Bending strength	0.7 N/mm²	DIN 53423
Compressive strength	0.3 N/mm²	DIN 53421
Percent elongation at failure	Approx. 25%	DIN 53571
Water absorption	< 1 Vol. %	DIN 53428
Water vapour transmission properties	Coefficient μ of resistance to water vapour diffusion = 23	DIN EN ISO 12572
Overall emission	According to "EC1 plus – very low emission"	
Thermal conductivity	Approx. 0.0362 W/(m x K)	DIN 52612
Permeability to air when new	a < 0.1 m³/[h · m · (daPa)$^{2/3}$]	Based on DIN 18542
Sound-absorption value of joints	$R_{ST,w}$ (C; C_{tr}) = 61 (-1; -3) db (10 mm joint width) $R_{ST,w}$ (C; C_{tr}) = 59 (-6; -4) db (30 mm joint width)	DIN EN ISO 717-1
Thermal stability	–40 °C up to +90 °C +120 °C (for max. 1 hour)	
Volume change	< 3%	DIN EN ISO 10563
Building material class	B2 (normally inflammable)	DIN 4102, Part 1

[1] 30 mm foam thread
[2] Measured at 20 °C and 65% relative air humidity. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU gun foam B2, with PDR	Aerosol can	500 ml	Grey	12 pcs	H-01106-00-0-0

GU gun foam

B2, with PDR

Processing

- **Substrates**
  All standard building substrates such as concrete, masonry, stone, plaster, timber, metal, polystyrene, PUR rigid foam, polyester and hard PVC. Does not adhere to PE, PP, PTFE and silicones. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease.
- **Pretreatment**
  Slight moistening of the surfaces improves adhesion and thorough curing as well as the cell structure of the foam. It is advisable to carry out an initial adhesion and compatibility test on every substrate.
- Before starting work, surfaces adjacent to the work area should be protected against accidental transfer of the foam. Screw the can firmly onto the gun thread and, with the gun pointing downwards, shake the can firmly approx. 30 x so that the can contents are well mixed and the foam quality is optimised. Set the foam thread using the adjusting screw and then spray the foam using the trigger. Only fill joints and cavities to approx. ⅔ full as the foam continues to expand. Sprinkle fresh foam with water to improve cell structure, thorough curing and yield. Cut off fully cured excess foam with a knife.
- Cured polyurethane foam should be protected from the effects of UV by coating or sealing with sealing compounds (e.g. silicone, polyurethane, acrylic or MS polymer)
- **Processing temperature**
  – Temperature of adhesive surface: +5 °C to +35 °C
  – Can temperature: +5 °C to +25 °C
  – Optimum: +15 °C to +25 °C

  If necessary, put the can in cool or warm water to slowly bring it to the optimum temperature
- **Cleaning**
  – GU gun cleaner for cleaning and removing fresh foam

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place. The foam cans must be stored upright in order to prevent the spray valve from being glued up. Seal opened containers well and use quickly.

Safety instructions

- Observe standard workplace hygiene
- Wear safety goggles and safety gloves
- Remove cured foam mechanically, never burn off

Disposal

- Empty cans should be disposed of in line with national regulations. In Germany, boxes of empty GU gun foam cans are collected by PDR. Further information can be found on the label and/or on the outside of the box.

GU gun foam

B2, with PDR

Technical appraisal certificate

MFPA Leipzig GmbH

Prüf-, Überwachungs- und Zertifizierungsstelle für Baustoffe, Bauprodukte und Bausysteme

Geschäftsbereich III - Baulicher Brandschutz
Dr.-Ing. Peter Nause

Arbeitsgruppe 3.1 - Brandverhalten von Bauprodukten
Dipl.-Ing. (FH) J. Dahncke
Telefon +49 (0) 341 - 6582-119
dahncke@mfpa-leipzig.de

Allgemeines bauaufsichtliches Prüfzeugnis
Nr. P-SAC-02 /III-630
vom 10. Oktober 2013

Gegenstand:	„GU Pistolenschaum" in Einweg-Druckbehältern Baustoffklasse B2 gemäß DIN 4102 Teil 1, Ausgabe Mai 1998
entsprechend	lfd. Nr. 2.10.1.1 Bauregelliste A, Teil 2, Ausgabe 2013/1: Baustoffe, an die nur Anforderungen an das Brandverhalten gestellt werden und die normalentflammbar (Klasse DIN 4102-B2)" sind.
Antragsteller:	Gretsch-Unitas GmbH Johann-Maus-Str. 3 71254 Ditzingen
Ausstellungsdatum:	10.10.2013
Geltungsdauer bis:	16.10.2017
Bearbeiter:	Dipl.-Ing. (FH) J. Dahncke

Dieses allgemeine bauaufsichtliche Prüfzeugnis umfasst 5 Seiten.

Dieser Bericht darf nur ungekürzt vervielfältigt werden. Eine Veröffentlichung – auch auszugsweise – bedarf der vorherigen schriftlichen Zustimmung der MFPA Leipzig GmbH. Als rechtsverbindliche Form gilt die deutsche Schriftform mit Originalunterschriften und Originalstempel des/der Zeichnungsberechtigten.

Es gelten die Allgemeinen Geschäftsbedingungen (AGB) der MFPA Leipzig GmbH.

Licensed by EMICODE

Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.

GEV EMICODE

Lizenzerteilung zur Führung des EMICODE

Lizenzierungs-Nummer:	9689/15.05.06
Für den Artikel	GU-Pistolenschaum B2
wird auf Antrag vom	23.10.2018

unter Bezugnahme auf die Einstufung gemäß den nach § 10 der GEV-Zeichensatzung festgelegten Richtlinien

namens der Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V. für den oben genannten Artikel nach § 5 Abs. 4 der GEV-Zeichensatzung die Lizenz zur Führung des GEV-Zeichens

GEV-EMICODE EC 1 PLUS sehr emissionsarm

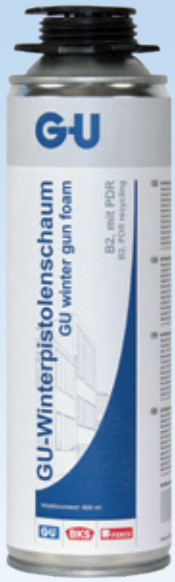
erteilt. Damit erfüllt dieser Artikel die rückseitig aufgeführten Kriterien.
Die Firma ist ordentliches Mitglied der GEV.

OM 036 24.10.2018
gültig bis 24.10.2023

Der Geschäftsführer
Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.
Wiklinger Straße 4 · D-40219 Düsseldorf

GU winter gun foam

B2, with PDR



Product description

GU winter gun foam is a moisture-curing, one-component installation foam. The newly developed formulation makes it particularly well suited to working at low ambient temperatures.

GU winter gun foam adheres to all standard building materials, excluding polyethylene, silicone, oils, fats, mould release agents and the like. GU winter gun foam corresponds to building materials class B2 as set out in DIN 4102. The foam can be processed when the ambient temperature and the substrate are at –15 °C to +30 °C. The cured foam is semi-rigid, elastic, predominantly closed cell, rot proof, moisture resistant, and thermally stable between –40 °C and +100 °C. It is resistant to aging but not to UV radiation. Its thermal and sound insulation characteristics are excellent.

Product characteristics

- Yield up to 40 litres (500 ml can)
- Workable down to an ambient temperature of –15 °C
- Fine and even cell structure
- Very good dimensional stability
- Building material grade B2
- Tested according to "EC1 plus – very low emission"

Applications

Everywhere where gaps need bridging, sealing and insulating, e.g. when installing jamb liners, for clean and controlled backfilling in window installation, and for insulating sealing of connecting joints in windows and shutter boxes. Also for filling connecting joints on external jamb liners and for foam-filling small masonry openings and other cavities. For general use in high-rise buildings, where panels and the like need to be sealed.

GU winter gun foam

B2, with PDR

Technical data and requirements [2]

GU winter gun foam	Classification and grading	NF / ISO / DIN standard
Yield, free-foamed (500 ml can)	Up to 40 litres	
Bulk density, free-foamed	Approx. 13 kg/m³	
Cell structure	Fine	
Tack-free time	Approx. 6 – 9 minutes	
Can be cut after [1]	Approx. 9 – 12 minutes	
Fully load-bearing [1]	Approx. 12 hours	
Processing temperature: substrate and surroundings – Minimum / Maximum / Optimum	–15 °C / +30 °C / +20 °C	
Processing temperature: can – Minimum / Maximum / Optimum	+5 °C / +30 °C / +20 °C	
Thermal stability of the cured foam thread	–40 °C to +80 °C (short-term to +100 °C)	
Overall emission	According to "EC1 plus – very low emission"	
Elongation at break	8–10%	With reference to DIN 53430
Shear strength	3–4 N/cm²	With reference to DIN 53427
Tensile strength	6–7 N/cm²	With reference to DIN 53430
Compressive stress at 10% compression	2–3 N/cm²	With reference to DIN 53421
Building material class	B2 (normally inflammable)	DIN 4102, Part 1

[1] 20 mm foam thread
[2] Measured at 20 °C and 50% relative air humidity. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	PU/Box	PU/Pallet	Article number
GU winter gun foam B2, with PDR	Foam cartridge	500 ml	12 pcs	42 boxes	H-01162-00-0-0

GU winter gun foam

B2, with PDR

Processing

- The substrates must be stable, clean, and free of dust and grease. Remove any loose material and moisten the substrates well with water immediately before processing. If necessary, improve surface suitability using appropriate deep primers. Prepare building components properly for attachment.
- Before screwing the can onto the foam gun, shake the can well approx. 20 times. Please note the operating instructions for the dispensing gun. Set the can down and screw the threaded adapter of the foam gun onto the black threaded ring on the can, taking care not to tip or knock the can over. To achieve an even finer and more uniform cell structure, an adapter tube can be plugged onto the gun.
- Please note the information on the can and supplied with the dispensing gun. Fresh foam will continue to expand to one and a half to two times its volume, so do not overfill the cavities. Dispense the foam by controlled pressing of the gun trigger lever. Curing of the foam is accelerated by additional moistening of the substrates. For relatively large joints and cavities, moistening after each layer of foam is recommended. Insufficient moisture and overfilling the cavities can lead to undesired subsequent expansion of the foam.
- **Processing temperature**
  - Optimum: +20 °C

  Cans that are too cold should be carefully warmed in a bath of lukewarm water. Never heat to above +50 °C to avoid risk of bursting. Cans that are too hot, e.g. from the car in the summer, should likewise be cooled in a bath of cold water, but do not shake them!
- **Cleaning**
  - GU gun cleaner for cleaning and removing fresh foam
  - After processing, clean the adapter tube with GU gun cleaner or replace for the next application
  - Specks of fresh foam should be removed immediately with GU gun cleaner; this is only possible within the tack-free time
  - Cured foam can only be removed by mechanical means

Storage

- The ideal storage temperature for the cans is between +10 °C and +20 °C
- The cans should be stored upright and protected from frost and the effects of heat
- Once opened, a can should be used within 4 weeks

Safety instructions

- Never heat the cans to above +50 °C to avoid risk of bursting
- Never shake cans that are too hot, e.g. from the car in the summer, but cool them in a bath of cold water before use

Disposal

- Empty cans should be disposed of in line with national regulations. In Germany, boxes of empty GU winter gun foam cans are collected by PDR. Further information can be found on the label and/or on the outside of the box.

GU winter gun foam

B2, with PDR

Licensed by EMICODE

Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.

GEV EMICODE

Lizenzerteilung zur Führung des EMICODE

Lizenzierungs-Nummer:	9688/15.05.06
Für den Artikel	GU-Winterpistolenschaum B2
wird auf Antrag vom	23.10.2018

unter Bezugnahme auf die Einstufung gemäß den nach § 10 der GEV-Zeichensatzung festgelegten Richtlinien

namens der Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V. für den oben genannten Artikel nach § 5 Abs. 4 der GEV-Zeichensatzung die Lizenz zur Führung des GEV-Zeichens

GEV-EMICODE EC 1 PLUS sehr emissionsarm

erteilt. Damit erfüllt dieser Artikel die rückseitig aufgeführten Kriterien. Die Firma ist ordentliches Mitglied der GEV.

OM 036 24.10.2018
gültig bis 24.10.2023

Der Geschäftsführer
Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.
Völklinger Straße 4 · D-40219 Düsseldorf

GU-2K-quick foam

B2, with PDR

Product description

GU-2K-quick foam is a ready-to-use, 2-component, self-expanding polyurethane quick foam.

Product characteristics

- Solvent-free
- Cures extremely quickly, irrespective of the air humidity, without pressure or tension
- Outstanding dimensional stability, i.e. no loss of volume and no post-expansion once curing is completed
- Excellent adhesion to nearly all building substrates (except PE, PP, PTFE and silicones)
- Already suitable for cutting after 30 minutes
- Can contents are sufficient for up to 2 door frames
- Better sound and thermal insulation than mineral wool, cork and fibreglass, prevents thermal and acoustic bridges
- Resistant to a wide range of solvents, paints, chemicals, oils and petrol
- Resistant to aging, non-degradable, but not UV-resistant
- Waterproof (but not watertight)
- Reliable activation
- After curing, the foam can be plastered, painted or pasted over
- Tested according to "EC1 plus – very low emission"

Applications

- Installation and insulation of door frames, timber jamb liners and window elements on buildings in line with EnEV and DIN 4108-7
- Installation of DIN-tested window sills and stairs
- Seating bathtub and shower tray supports (soundproofing effect and prevents loss of heat from the bath water)
- Seating acrylic bathtubs in an existing bathtub
- Soundproofing and insulation for refrigerated wagon and cold room construction
- Foam-filling of hard to access and poorly vented cavities in caravan, boat, tank, machine and metal structures as well as for electrical installation
- Model and mould making

GU-2K-quick foam

B2, with PDR

Technical data and requirements

GU-2K-quick foam	Classification and grading	NF / ISO / DIN standard
Base	Polyurethane	
Consistency	Stable foam (does not sag)	
Bulk density	Approx. 35 kg/m³	DIN EN ISO 845
Curing method	Curing through chemical reaction at room temperature	
Curing speed [1] [2]	Approx. 20 minutes	
Tack-free time of the surface [1] [2]	Approx. 6–8 minutes	
Can be cut after [1] [2]	Approx. 8–10 minutes	
Removal of frame spreaders [1] [2]	Approx. 30 minutes	
Fully load-bearing [1] [2]	Approx. 150 minutes	
Foam yield [1] [2]	Up to 8 litres per container for free foaming	
Post-expansion	Extremely low	
Pore structure	Approx. 90% closed pores	
Shear strength	9 N/cm²	ISO 1922
Compressive stress at 10% compression	11 N/cm²	DIN EN ISO 844
Percent elongation at failure	Approx. 14%	DIN 53571
Water absorption	Approx. 0.3 Vol. %	DIN EN 1609
Water vapour transmission properties	Coefficient μ of resistance to water vapour diffusion = 103	DIN EN ISO 12572
Overall emission	According to "EC1 plus – very low emission"	
Thermal conductivity	Approx. 0.03 W/(m x K)	DIN 52612
Permeability to air when new	a < 0.1 m³/[h · m · (daPa)$^{2/3}$]	Based on DIN 18542
Sound-absorption value of joints	$R_{ST,w}$ (C; C_{tr}) = 61 (-1; -3) db (10 mm joint width) $R_{ST,w}$ (C; C_{tr}) = 60 (-1; -3) db (10 mm joint width)	ift guideline SC-01
Thermal stability	–40 °C to +80 °C (long-term) –40 °C to +100 °C (short-term)	
Volume change	< 5%	
Building material class	B2 (normally inflammable)	DIN 4102, Part 1

The information is based on fully cured product.
[1] 30 mm foam thread
[2] Measured at 20 °C and 65% relative air humidity. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU-2K-quick foam B2, with PDR	Aerosol can	400 ml	Pale green	12 pcs	H-00636-00-0-0

GU-2K-quick foam

B2, with PDR

Processing

- **Substrates**
  All standard building substrates such as concrete, masonry, stone, plaster, timber, metal, polystyrene, PUR rigid foam, polyester and hard PVC. Does not adhere to PE, PP, PTFE and silicones. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease. It is advisable to carry out an initial adhesion and compatibility test on every substrate.
- Before starting work, cover surfaces adjacent to the work area. Screw the supplied adapter tube to the valve. Turn the lower, black plate 5 x clockwise until it becomes easier. This opens the B component. With the valve pointing downwards, shake the can firmly approx. 20 x so that the can contents are well mixed and the foam quality is optimised. The foam should be a uniform pale green. If not, repeat the shaking process.
- For installing door and window frames, the building elements should be aligned and fixed with wedges. For door frames, use spreaders. Then apply the foam at 3 points on each of the left-hand and right-hand sides. Only fill joints and cavities to approx. half-full as the foam continues to expand. Do not moisten adhesion surfaces or foam! Cut off fully cured excess foam with a knife.
- **Processing temperature**
  – Temperature of adhesive surface: +5 °C to +35 °C
  – Can temperature: +15 °C to +25 °C

  If necessary, put the can in cool or warm water to slowly bring it to the optimum temperature
- **Cleaning**
  – GU gun cleaner for cleaning and removing fresh foam
  – Cured foam can only be removed by mechanical means

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place
- The foam cans must be stored upright in order to prevent the spray valve from being glued up
- Seal opened containers well and use quickly

Safety instructions

- Observe standard workplace hygiene. Wear safety goggles and safety gloves.
- After mixing the can contents must be completely emptied within 5 minutes, otherwise the foam will cure inside the can and create a fire hazard
- At elevated can temperatures, it is possible that the foam can may burst after actuating the valve
- Remove cured foam mechanically, never burn off

Disposal

- Empty cans should be disposed of in line with national regulations. In Germany, boxes of empty GU-2K-quick foam cans are collected by PDR. Further information can be found on the label and/or on the outside of the box.

GU-2K-quick foam

B2, with PDR

Licensed by EMICODE

Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.

GEV EMICODE

Lizenzerteilung zur Führung des EMICODE

Lizenzierungs-Nummer:	9690/15.05.06
Für den Artikel	GU-2K-Schnellschaum B2
wird auf Antrag vom	23.10.2018

unter Bezugnahme auf die Einstufung gemäß den nach § 10 der GEV-Zeichensatzung festgelegten Richtlinien

namens der Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V. für den oben genannten Artikel nach § 5 Abs. 4 der GEV-Zeichensatzung die Lizenz zur Führung des GEV-Zeichens

GEV-EMICODE EC 1 PLUS sehr emissionsarm

erteilt. Damit erfüllt dieser Artikel die rückseitig aufgeführten Kriterien. Die Firma ist ordentliches Mitglied der GEV.

OM 036 24.10.2018
gültig bis 24.10.2023

Der Geschäftsführer
Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.
Völklinger Straße 4 · D-40219 Düsseldorf

GU gun foam

B2, without PDR

Product description

GU gun foam is a ready-to-use, one-component, self-expanding polyurethane rigid foam for use with a corresponding dispensing gun.
Please note: this product cannot be used in Germany.

Product characteristics

- Outstanding dimensional stability, i.e. no loss of volume and only slight post-expansion once curing is completed
- Excellent adhesion to nearly all building substrates (except PE, PP, PTFE and silicones)
- Better sound and thermal insulation than mineral wool, cork and fibreglass
- Outstanding application properties since the dispensing gun ensures exact and sparing application
- Quick to cure thoroughly
- Resistant to a wide range of solvents, paints and chemicals
- Resistant to aging, non-degradable, but not UV-resistant

Applications

- Soundproofing and insulation for refrigerated wagon and cold room construction
- Fixing and filling for machines and metal structures, as well as for electrical installation
- Installation and foam filling of window and door frames and window sills
- Sound insulation
- Filling cavities with foam, e.g. masonry openings, attic conversions, door frames, pipe ducts, shutter boxes etc.

GU gun foam

B2, without PDR

Technical data and requirements

GU gun foam	Classification and grading	NF / ISO / DIN standard
Base	Polyurethane	
Consistency	Stable foam (does not sag)	
Bulk density	Approx. 18 kg/m³	DIN EN ISO 845
Curing method	Curing through air humidity at room temperature	
Curing speed [1] [2]	Approx. 30 minutes	
Tack-free time of the surface [1] [2]	Approx. 8 minutes	
Can be cut after [1] [2]	Approx. 40 minutes	
Removal of frame spreaders [1] [2]	Approx. 2 hours	
Fully load-bearing [1] [2]	Approx. 12 hours	
Foam yield [1] [2]	Approx. 45 litres per container for free foaming	
Post-expansion	Low	
Pore structure	Approx. 70–80% closed pores	
Shear strength	0.14 N/mm²	DIN 53427
Bending strength	0.7 N/mm²	DIN 53423
Compressive strength	0.3 N/mm²	DIN 53421
Percent elongation at failure	Approx. 25%	DIN 53571
Water absorption	1 Vol. %	DIN 53428
Water vapour transmission properties	Coefficient μ of resistance to water vapour diffusion = 32	DIN EN ISO 12572
Thermal conductivity	Approx. 0.0354 W/(m x K)	DIN 52612
Permeability to air when new	a < 0.1 m³/[h · m · (daPa)$^{2/3}$]	Based on DIN 18542
Sound-absorption value of joints	$R_{ST,w}$ (C; C_{tr}) = 60 (-1; -3) db (10 and 20 mm joint width)	DIN 52210
Thermal stability	–40 °C up to +90 °C +120 °C (for max. 1 hour)	
Volume change	None	
Building material class	B2 (normally inflammable)	DIN 4102, Part 1

[1] 30 mm foam thread
[2] Measured at 20 °C and 65% relative air humidity. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU gun foam B2, without PDR	Aerosol can	750 ml	Yellow	12 pcs	H-00286-00-0-0

GU gun foam

B2, without PDR

Processing

- **Substrates**
  All standard building substrates such as concrete, masonry, stone, plaster, timber, metal, polystyrene, PUR rigid foam, polyester and hard PVC. Does not adhere to PE, PP, PTFE and silicones. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease.
- **Pretreatment**
  Slight moistening of the surfaces improves adhesion and thorough curing as well as the cell structure of the foam. It is advisable to carry out an initial adhesion and compatibility test on every substrate.
- Before starting work, cover surfaces adjacent to the work area. Screw the can firmly onto the gun thread and, with the gun pointing downwards, shake the can firmly approx. 30 x so that the can contents are well mixed and the foam quality is optimised. Set the foam thread using the adjusting screw and then spray the foam using the trigger. Only fill joints and cavities to approx. ⅓ full as the foam continues to expand. Sprinkle fresh foam with water to improve cell structure, thorough curing and yield. Cut off fully cured excess foam with a knife.
- Cured polyurethane foam should be protected from the effects of UV by coating or sealing with sealing compounds (e.g. silicone, polyurethane, acrylic or MS polymer)
- **Processing temperature**
  – Temperature of adhesive surface: +5 °C to +35 °C
  – Can temperature: +5 °C to +35 °C
  – Optimum: +15 °C to +25 °C

  If necessary, put the can in cool or warm water to slowly bring it to the optimum temperature
- **Cleaning**
  – GU gun cleaner for cleaning and removing fresh foam
  – Cured foam can only be removed by mechanical means

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place
- The foam cans must be stored upright in order to prevent the spray valve from being glued up
- Seal opened containers well and use quickly

Safety instructions

- Observe standard workplace hygiene
- Wear safety goggles and safety gloves
- Remove cured foam mechanically, never burn off

GU gun foam

B3, without PDR

Product description

GU gun foam is a ready-to-use, one-component, self-expanding polyurethane foam for use with a corresponding dispensing gun. Please note: this product cannot be used in Germany.

Product characteristics

- Free of CFCs and HCFCs (Montreal Convention). The propellant is completely harmless to the ozone layer.
- Outstanding dimensional stability, i.e. no loss of volume and only slight post-expansion once curing is completed
- Excellent adhesion to nearly all building substrates (except PE, PP, PTFE and silicones)
- Better sound and thermal insulation than mineral wool, cork and fibreglass
- Outstanding application properties since the dispensing gun ensures exact and sparing application
- Quick to cure thoroughly
- Resistant to a wide range of solvents, paints and chemicals
- Resistant to aging, non-degradable, but not UV-resistant

Applications

- Soundproofing and insulation for refrigerated wagon and cold room construction
- Fixing and filling for machines and metal structures, as well as for electrical installation
- Installation and foam filling of window and door frames and window sills
- Sound insulation
- Filling cavities with foam, e.g. masonry openings, attic conversions, door frames, pipe ducts, shutter boxes etc.

GU gun foam

B3, without PDR

Technical data and requirements

GU gun foam	Classification and grading	NF / ISO / DIN standard
Base	Polyurethane	
Consistency	Stable foam (does not sag)	
Bulk density	Approx. 25 kg/m³	DIN EN ISO 845
Curing method	Curing through air humidity at room temperature	
Curing speed [1] [2]	Approx. 30 minutes	
Tack-free time of the surface [1] [2]	Approx. 8 minutes	
Can be cut after [1] [2]	Approx. 40 minutes	
Removal of frame spreaders [1] [2]	Approx. 2 hours	
Fully load-bearing [1] [2]	Approx. 12 hours	
Foam yield [1] [2]	Approx. 35–40 litres per litre for free foaming	
Post-expansion	Low	
Pore structure	Approx. 70–80% closed pores	
Shear strength	0.17 N/mm²	DIN 53427
Bending strength	0.7 N/mm²	DIN 53423
Compressive strength	0.3 N/mm²	DIN 53421
Percent elongation at failure	Approx. 25%	DIN 53571
Water absorption	1 Vol. %	DIN 53428
Water vapour transmission properties	70 g/m² – 24 h	DIN EN ISO 12572
Thermal conductivity	Approx. 0.032 W/(m x K)	DIN 52612
Sound-absorption value of joints	$R_{ST,w}$ (C; C_{Tr}) = 58 (-1; -6) db (10 and 20 mm joint width)	DIN 52210
Thermal stability	–40 °C up to +90 °C +120 °C (for max. 1 hour)	
Volume change	None	
Building material class	B3 (highly inflammable)	DIN 4102, Part 1

[1] 30 mm foam thread

[2] Measured at 20 °C and 65% relative air humidity. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU gun foam B3, without PDR	Aerosol can	750 ml	Yellow	12 pcs	9-38964-00-0-0

GU gun foam

B3, without PDR

Processing

- **Substrates**
  All standard building substrates such as concrete, masonry, stone, plaster, timber, metal, polystyrene, PUR rigid foam, polyester and hard PVC. Does not adhere to PE, PP, PTFE and silicones. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease.
- **Pretreatment**
  Slight moistening of the surfaces improves adhesion and thorough curing as well as the cell structure of the foam. It is advisable to carry out an initial adhesion and compatibility test on every substrate.
- Before starting work, cover surfaces adjacent to the work area. Screw the can firmly onto the gun thread. Then, with the gun pointing downwards, shake the can firmly 30 x so that the can contents are well mixed and the foam quality is optimised. Set the foam thread using the adjusting screw and then spray the foam using the trigger. Only fill joints and cavities to approx. ⅓ full as the foam continues to expand. Cut off fully cured excess foam with a knife.
- Cured polyurethane foam should be protected from the effects of UV by coating or sealing with sealing compounds (e.g. silicone, polyurethane, acrylic or MS polymer)
- **Processing temperature**
  – Temperature of adhesive surface: +5 °C to +30 °C
  – Optimum: +15 °C to +25 °C

  If necessary, put the can in cool or warm water to slowly bring it to the optimum temperature
- **Cleaning**
  – GU gun cleaner for cleaning and removing fresh foam
  – Cured foam can only be removed by mechanical means

Safety instructions

- Observe standard workplace hygiene
- Wear safety goggles and safety gloves
- Remove cured foam mechanically, never burn off

GU-2K-quick foam

B3, without PDR

Product description

GU-2K-quick foam is a ready-to-use, 2-component, self-expanding polyurethane quick foam for installing door frames and timber jamb liners.
Please note: this product cannot be used in Germany.

Product characteristics

- Outstanding dimensional stability, i.e. no loss of volume and minimal post-expansion once curing is completed
- Excellent adhesion to nearly all building substrates (except PE, PP, PTFE and silicones)
- Already suitable for cutting after 30 minutes
- Can contents are sufficient for 1 to 2 door frames
- Cures extremely quickly, irrespective of the air humidity, without pressure or tension
- Better sound and thermal insulation than mineral wool, cork and fibreglass
- Quick to cure thoroughly
- Resistant to a wide range of solvents, paints and chemicals
- Resistant to aging, non-degradable, but not UV-resistant

Applications

- Seating bathtubs
- Soundproofing and insulation for refrigerated wagon and cold room construction
- Fixing and filling for machines and metal structures, as well as for electrical installation
- Installation and foam filling of window and door frames and window sills
- Sound insulation

GU-2K-quick foam

B3, without PDR

Technical data and requirements

GU-2K-quick foam	Classification and grading	NF / ISO / DIN standard
Base	Polyurethane	
Consistency	Stable foam (does not sag)	
Bulk density	Approx. 35 kg/m³	DIN EN ISO 845
Curing method	Curing through chemical reaction at room temperature	
Curing speed [1] [2]	Approx. 20 minutes	
Tack-free time of the surface [1] [2]	Approx. 6–8 minutes	
Can be cut after [1] [2]	Approx. 8–10 minutes	
Removal of frame spreaders [1] [2]	min. 1 hour	
Fully load-bearing [1] [2]	Approx. 2 hours	
Foam yield [1] [2]	Approx. 15 litres per litre for free foaming	
Post-expansion	Extremely low	
Pore structure	Approx. 90% closed pores	
Shear strength	9 N/cm²	DIN 53427
Compressive strength	11 N/cm²	DIN 53421
Percent elongation at failure	Approx. 25%	DIN 53571
Water absorption	Approx. 0.3 Vol. %	DIN 53428
Water vapour transmission properties	70 g/m² – 24 h	DIN EN ISO 12572
Thermal conductivity	Approx. 0.03 W/(m x K)	DIN 52612
Thermal stability	–40 °C to +80 °C (long-term) –40 °C to +100 °C (short-term)	
Volume change	None	
Building material class	B3 (highly inflammable)	DIN 4102, Part 1

[1] 30 mm foam thread
[2] Measured at 20 °C and 65% relative air humidity. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU-2K-quick foam B3, without PDR	Aerosol can	400 ml	Pale green	12 pcs	H-00011-00-0-0

GU-2K-quick foam

B3, without PDR

Processing

- **Substrates**
  All standard building substrates such as concrete, masonry, stone, plaster, timber, metal, polystyrene, PUR rigid foam, polyester and hard PVC. Does not adhere to PE, PP, PTFE and silicones. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease.
- **Pretreatment**
  Slight moistening of the surfaces improves adhesion and thorough curing as well as the cell structure of the foam. It is advisable to carry out an initial adhesion and compatibility test on every substrate.
- Before starting work, cover surfaces adjacent to the work area. Screw the supplied adapter tube to the valve. Turn the lower, black plate 5 x clockwise until it becomes easier. This opens the B component. With the valve pointing downwards, shake the can firmly approx. 20 x so that the can contents are well mixed and the foam quality is optimised. The foam should be a uniform pale green. If not, repeat the shaking process.
- For installing door and window frames, the building elements should be aligned and fixed with wedges. For door frames, use spreaders. Then apply the foam at 3 points on each of the left-hand and right-hand sides. Only fill joints and cavities to approx. ⅓ full as the foam continues to expand. Do not moisten adhesion surfaces or foam! Cut off fully cured excess foam with a knife.
- **Processing temperature**
  – Temperature of adhesive surface: +5 °C to +30 °C
  – Optimum: +15 °C to +25 °C

  If necessary, put the can in cool or warm water to slowly bring it to the optimum temperature
- **Cleaning**
  – GU gun cleaner for cleaning and removing fresh foam
  – Cured foam can only be removed by mechanical means

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place
- The foam cans must be stored upright in order to prevent the spray valve from being glued up
- Seal opened containers well and use quickly

Safety instructions

- Observe standard workplace hygiene. Wear safety goggles and safety gloves
- After mixing the can contents must be processed within 5 minutes, otherwise the foam will cure inside the can and create a fire hazard
- At elevated can temperatures, it is possible that the foam can may burst after actuating the valve
- Remove cured foam mechanically, never burn off

GU gun cleaner

Product description

GU gun cleaner has been specially developed guns and for cleaning the inside of foam areas such as can tap valves, adapter tubes. The enclosed red valve can also be used to remove specks of foam, e.g. from window profiles, by spraying cleaner on and letting it take effect.

Product characteristics

- CFC-free
- HCFC-free
- Reliably removes and dissolves polyurethane foam while still fresh
- Fast working and residue-free
- With black standard threaded adapter
- Convenient cleaning and rinsing of gun interior using propellant gas pressure

Applications

GU gun cleaner is suitable for removing fresh PU foam that has not yet cured. It is particularly intended for cleaning GU dispensing guns and is fitted with a suitable adapter ring for this purpose. The red spray head also permits universal use of the cleaner, detached from the dispensing gun.

GU gun cleaner

Technical data and requirements

GU gun cleaner	Classification and grading	NF / ISO / DIN standard
Base	Acetone	
Consistency	Fluid	
Flash-off time	Approx. 5 minutes (depending on ambient temperature)	
Processing temperature	+5 °C up to+25 °C	

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU gun cleaner	Tin can	500 ml	–	12 pcs	9-38965-00-0-0

Processing

- **General removal of PU foam:** specks of fresh foam can be removed very easily by saturating a clean cloth and wiping off. Larger specks of foam can be sprayed directly and wiped with a clean cloth or rag. For sensitive areas, test carefully on a hidden area to check the effects on the substrates. Care is recommended as GU gun cleaner containers acetone which can dissolve or soften plastics, varnishes, coatings, paints, lettering, textiles, etc.
- **To clean the dispensing guns:** before starting work, the operator should have to hand a suitable waste container and a rag to catch dissolved foam residue and cleaning fluid. After disconnecting a used PU foam can, first of all the threaded connector on the dispensing gun is sprayed with GU gun cleaner. The red spray head is attached for this purpose. All other remnants of fresh PU foam on the dispensing gun can be removed by spraying the dirty areas. To clean inside the dispensing gun, the red spray valve is removed and the black threaded adapter on the can is carefully screwed into the coupling piece on the dispensing gun. For the sake of safety, the dispensing lever on the dispensing gun is depressed simultaneously, to depressurise the dispensing gun. The dispensing gun is then rinsed by pressing on the dispensing level until cleaning fluid comes out of the tip. The dispensing lever is then closed and the cleaner is left to work for approx. 2 minutes. Following on from this, the dispensing lever is re-opened and the dispensing gun is rinsed until only clear cleaning fluid comes out. The cleaning fluid must be drained into a suitable container to prevent contaminating the surroundings.
- **Note:** only fresh foam that has not yet cured can be removed. Cured foam can only be removed by mechanical means. Take care when cleaning dispensing guns as scraping with sharp objects can detach the protective coatings!

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place. The cans must be stored upright in order to prevent the spray valve from being glued up. Seal opened containers well and use quickly.

Disposal

- You can register to have completely empty GU gun cleaner cans disposed of in Germany through the Duale System collection system, as the tin can be recycled. In other countries, national regulations should be observed.

GU foam gun

Size L, nozzle opening 1 mm

Product description

The GU foam gun is used for the efficient and environmentally friendly processing of 1-component polyurethane foam. All standard gun foams in aerosol cans with standard screw adapters are suitable. As a result of the opportunity for precise adjustment of the material flow rate, the pistol is suitable for controlled spraying and adapted filling of joints, enabling fast, simple, exact and reliable door and window installation.

Product characteristics

- Simple operation
- Clean spray pattern
- Very fine adjustment with dispensing screw
- Low weight
- Can also be used in awkward areas
- Quick cleaning with GU gun cleaner

GU foam gun

Size L, nozzle opening 1 mm

Order information

Designation	Nozzle opening	PU	Article number
GU foam gun – size L	1 mm	1 pc	H-01454-00-0-0

Application

- Before use, check the functioning of the gun. Shake the foam can thoroughly and remove the sealing cap. Screw the gun onto the upright can. Work quickly to prevent any foam escaping sideways from the adapter (if necessary, remove with GU gun cleaner). Press the trigger gently to fill the gun with foam. The gun is now ready to use.
- At the back of the gun, set the desired material flow using the dispensing screw. Turning clockwise reduces the flow of foam, while turning anticlockwise increases the foam output. Check to see which setting gives you the best result.
- **Exchanging the polyurethane foam can:** to exchange, hold the gun with the foam can pointing toward the floor. Press the lever several times to empty as much residual foam as possible from the interior of the foam gun. Disconnect or unscrew the foam can in this position. Clean the adapter and nozzle of the gun with GU gun cleaner. If the can is not yet empty and is to be used again later, likewise clean the adapter on the can with GU gun cleaner and close the can. For short breaks in work, leave the can attached and screw the dispensing screw in completely to seal the gun tight.
- If there is a change in the viscosity of the foam, it is possible that foam is escaping at the needle seal. In this case, immediately remove residual foam using GU gun cleaner and re-tighten the regulating screw on the needle seal clockwise using a jaw spanner (8 mm). Check whether the needle is still able to move freely. If required, the needle must be greased at the seal.

GU foam gun

Size XXL, nozzle opening 4 mm

Product description

The GU foam gun is used for the efficient and environmentally friendly processing of 1-component polyurethane foam. All standard gun foams in aerosol cans with standard screw adapters are suitable. As a result of the opportunity for precise adjustment of the material flow rate, the pistol is suitable for controlled spraying and adapted filling of joints, enabling fast, simple, exact and reliable door and window installation.

Product characteristics

- Simple operation
- Clean spray pattern
- Very fine adjustment with dispensing screw
- Low weight
- Can also be used in awkward areas
- Quick cleaning with GU gun cleaner

GU foam gun

Size XXL, nozzle opening 4 mm

Order information

Designation	Nozzle opening	PU	Article number
GU foam gun – size XXL	4 mm	1 pc	H-01455-00-0-0

Application

- Before use, check the functioning of the gun. Shake the foam can thoroughly and remove the sealing cap. Screw the gun onto the upright can. Work quickly to prevent any foam escaping sideways from the adapter (if necessary, remove with GU gun cleaner). Press the trigger gently to fill the gun with foam. The gun is now ready to use.
- At the back of the gun, set the desired material flow using the dispensing screw. Turning clockwise reduces the flow of foam, while turning anticlockwise increases the foam output. Check to see which setting gives you the best result.
- **Exchanging the polyurethane foam can:** to exchange, hold the gun with the foam can pointing toward the floor. Press the lever several times to empty as much residual foam as possible from the interior of the foam gun. Disconnect or unscrew the foam can in this position. Clean the adapter and nozzle of the gun with GU gun cleaner. If the can is not yet empty and is to be used again later, likewise clean the adapter on the can with GU gun cleaner and close the can. For short breaks in work, leave the can attached and screw the dispensing screw in completely to seal the gun tight.
- If there is a change in the viscosity of the foam, it is possible that foam is escaping at the needle seal. In this case, immediately remove residual foam using GU gun cleaner and re-tighten the regulating screw on the needle seal clockwise using a jaw spanner (8 mm). Check whether the needle is still able to move freely. If required, the needle must be greased at the seal.

GU sealing tape BG1

Product description

GU sealing tape BG1 is a specially impregnated precompressed and multifunctional special joint sealing tape with superior functionality. It is used to provide a seal against air and driving rain at the connecting joints of windows and doors, while at the same time having thermal insulation characteristics over the entire depth.

GU sealing tape BG1 provides sealing that permits vapour diffusion, following the RAL principle ("a better seal inside than outside"), to reliably ensure that the joint dries out thoroughly.

Product characteristics

- Meets the requirements of BG1 according to DIN 18542
- 3 layers of sealing in just one product
- Seal a wide range of joints with just a few sheet sizes
- Simple and reliable window sealing during installation, in just one work step
- Real cost benefit due to time saved on installation
- Installation independent of the weather
- Meets the requirements of the EnEV and the principles of the RAL installation guidelines
- Weatherproof
- Solvent-free, no hazardous substance
- 10 year functional guarantee
- Tested according to "EC1 plus – very low emission"

Applications

GU sealing tape BG1 is an "all-in-one sheet" which combines all the requirements of EnEV- and RAL-compliant installation in one product. It is therefore particularly well suited to reliable, uncomplicated and time-saving sealing of window and door connectors.

GU sealing tape BG1

Technical data and requirements

GU sealing tape BG1	Classification and grading	NF / ISO / DIN standard
Material description	impregnated flexible PUR foam	
Base	Acrylate polymer (modified)	
Stress group	BG1	DIN 18542
Coefficient of joint permeability	a ≤ 0.1 $m^3/[h \cdot m \cdot (daPa)^n]$	DIN EN 12114
Impermeability to driving rain of joints	≥ 1050 Pa	DIN EN 1027
Thermal stability	–30 °C up to +80 °C	DIN 18542
Workable up to	–5 °C	
Resistance to effects of light and weathering	Requirements fulfilled	DIN 18542
Compatibility with adjacent building materials	Requirements fulfilled	DIN 18542
Size tolerance	Requirements fulfilled	DIN 7715 T5 P3
Thermal conductivity	λ = 0.048 W/m x K	DIN EN 12667
Resistance to water vapour diffusion	μ ≤ 100	DIN EN ISO 12572
Overall emission	According to "EC1 plus – very low emission"	
Vapour pressure gradient	Exterior diffusion-open (opposite side with colouring)	
Long-term durability	10 year functional guarantee	
Building material class	B1 (hardly inflammable)	DIN 4102
U value – window depth 60 mm – window depth 70 mm – window depth 80 mm	 U = 0.8 W/(m^2 x K) U = 0.7 W/(m^2 x K) U = 0.6 W/(m^2 x K)	DIN 4108-3

Order information

Designation	Sheet width	Joint width	Delivery	Length of roll	Colour	PU	Article number
GU sealing tape BG1 for window sill connection	30 mm	5 – 10 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	5.6 m	Black	56.0 m	H-01523-00-0-0
	30 mm	7 – 15 mm		4.3 m	Black	34.4 m	H-01523-01-0-0
	30 mm	10 – 20 mm		3.3 m	Black	33.0 m	H-01523-02-0-0
	35 mm	5 – 10 mm		5.6 m	Black	44.8 m	H-01554-00-0-0
	35 mm	7 – 15 mm		4.3 m	Black	34.4 m	H-01554-01-0-0
	35 mm	10 – 20 mm		3.3 m	Black	26.4 m	H-01554-02-0-0
	40 mm	5 – 10 mm		5.6 m	Black	39.2 m	H-01555-00-0-0
	40 mm	7 – 15 mm		4.3 m	Black	30.1 m	H-01555-01-0-0
	40 mm	10 – 20 mm		3.3 m	Black	23.1 m	H-01555-02-0-0
GU sealing tape BG1	54 mm	5 – 10 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	5.6 m	Black	28.0 m	H-01365-00-0-0
	54 mm	7 – 15 mm		4.3 m	Black	21.5 m	H-01365-01-0-0
	54 mm	10 – 20 mm		3.3 m	Black	16.5 m	H-01365-02-0-0
	64 mm	5 – 10 mm		5.6 m	Black	22.4 m	H-01366-00-0-0
	64 mm	7 – 15 mm		4.3 m	Black	17.2 m	H-01366-01-0-0
	64 mm	10 – 20 mm		3.3 m	Black	13.2 m	H-01366-02-0-0
	74 mm	5 – 10 mm		5.6 m	Black	22.4 m	H-01367-00-0-0
	74 mm	7 – 15 mm		4.3 m	Black	17.2 m	H-01367-01-0-0
	74 mm	10 – 20 mm		3.3 m	Black	13.2 m	H-01367-02-0-0
	84 mm	5 – 10 mm		5.6 m	Black	16.8 m	H-01368-00-0-0
	84 mm	7 – 15 mm		4.3 m	Black	12.9 m	H-01368-01-0-0
	84 mm	10 – 20 mm		3.3 m	Black	9.9 m	H-01368-02-0-0
	94 mm	5 – 10 mm		5.6 m	Black	16.8 m	H-01451-00-0-0
	94 mm	7 – 15 mm		4.3 m	Black	12.9 m	H-01451-01-0-0
	94 mm	10 – 20 mm		3.3 m	Black	9.9 m	H-01451-02-0-0

GU sealing tape BG1

Processing

- **Substrate/joint surface**
  Please remove dust, oil, grease, old sealing material and remnants of mortar etc. from the joint edges. The wall joint must be cleaned and pre-smoothed.
- **Determining the joint width**
  The joint edges must be parallel. Measure the joint widths and choose the corresponding sheet size for the joint tolerances that have been determined/ are to be expected. Use the table of sizes to select the correct size of sheet for the window joint.
- **Installation**
  Cut off the over-compressed beginning and end pieces of the roll. Remove the backing from the self-adhesive foil and stick the pre-compressed sheet onto the cleaned, dry window frame. To ensure that no leakage spots form, please take care to ensure that the sheet is not stretched, as the sheet will pull back to its original length after a time. At corners, make an allowance of at least 1 cm per m. The sheet should be compressed in the corners in this case too. The sheet must not be guided in one piece all the way around the window frame. To ensure the best possible installation, the sheet is designed with delayed elastic recovery. This is temperature-dependent. At temperatures above 20 °C, the sheet should be kept cool, even at the building site. At low temperatures, it is recommended to warm the sheet before use. Complete elastic recovery of GU sealing tape BG1 can take up to 48 hours after installation. The blue side must always face toward the interior of the room. Pre-drill the sheet using a HSS drill bit in the area of the fastening screws, to ensure 100% expansion.


Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Allgemeines bauaufsichtliches Prüfzeugnis

Prüfzeugnisnummer: P - NDS04 - 1153

Gegenstand: Fugendichtungsband „GU Dichtband - BG1"
gemäß
Baugeliste A Teil 2 - Ausgabe 2016/1 - Lfd. Nr. 2.10.2
als schwerentflammbarer Baustoff (Baustoffklasse B1)
nach DIN 4102-1: 1998-05

Antragsteller: Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

Ausstellungsdatum: 25. September 2017
Geltungsdauer: 30. November 2020

Aufgrund dieses allgemeinen bauaufsichtlichen Prüfzeugnisses ist der oben genannte Gegenstand im Sinne der Landesbauordnungen verwendbar.

Dieses allgemeine bauaufsichtliche Prüfzeugnis umfasst 5 Seiten.

Auftragsnummer: 175403

Technical appraisal certificate

Storage

- Store in the unopened packaging in a cool (+1 °C to +20°C), dry place


Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.

GEV EMICODE

Lizenzerteilung zur Führung des EMICODE

Lizenzierungs-Nummer: 8686/24.10.16
Für den Artikel GU Dichtband-BG1
wird auf Antrag vom 13.12.2017
unter Bezugnahme auf die Einstufung gemäß den nach § 10 der GEV-Zeichensatzung festgelegten Richtlinien

namens der Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V. für den oben genannten Artikel nach § 5 Abs. 4 der GEV-Zeichensatzung die Lizenz zur Führung des GEV-Zeichens

GEV-EMICODE EC 1 PLUS sehr emissionsarm

erteilt. Damit erfüllt dieser Artikel die rückseitig aufgeführten Kriterien.
Die Firma ist ordentliches Mitglied der GEV.

OM 138 13.12.2017
gültig bis 13.12.2022

Der Geschäftsführer

Licensed by EMICODE


Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Prüfbericht Nr. 176520

1. Ausfertigung vom 22.11.2017

Auftraggeber: Gretsch-Unitas GmbH Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

Auftrag vom: 09.11.2017

Inhalt des Auftrags: Zusammenfassung der Prüfergebnisse nach DIN 18542 Beanspruchungsgruppe BG1/BGR für das Fugendichtungsband:
„GU Dichtband - BG1"

Ausstellungsdatum: 22. November 2017

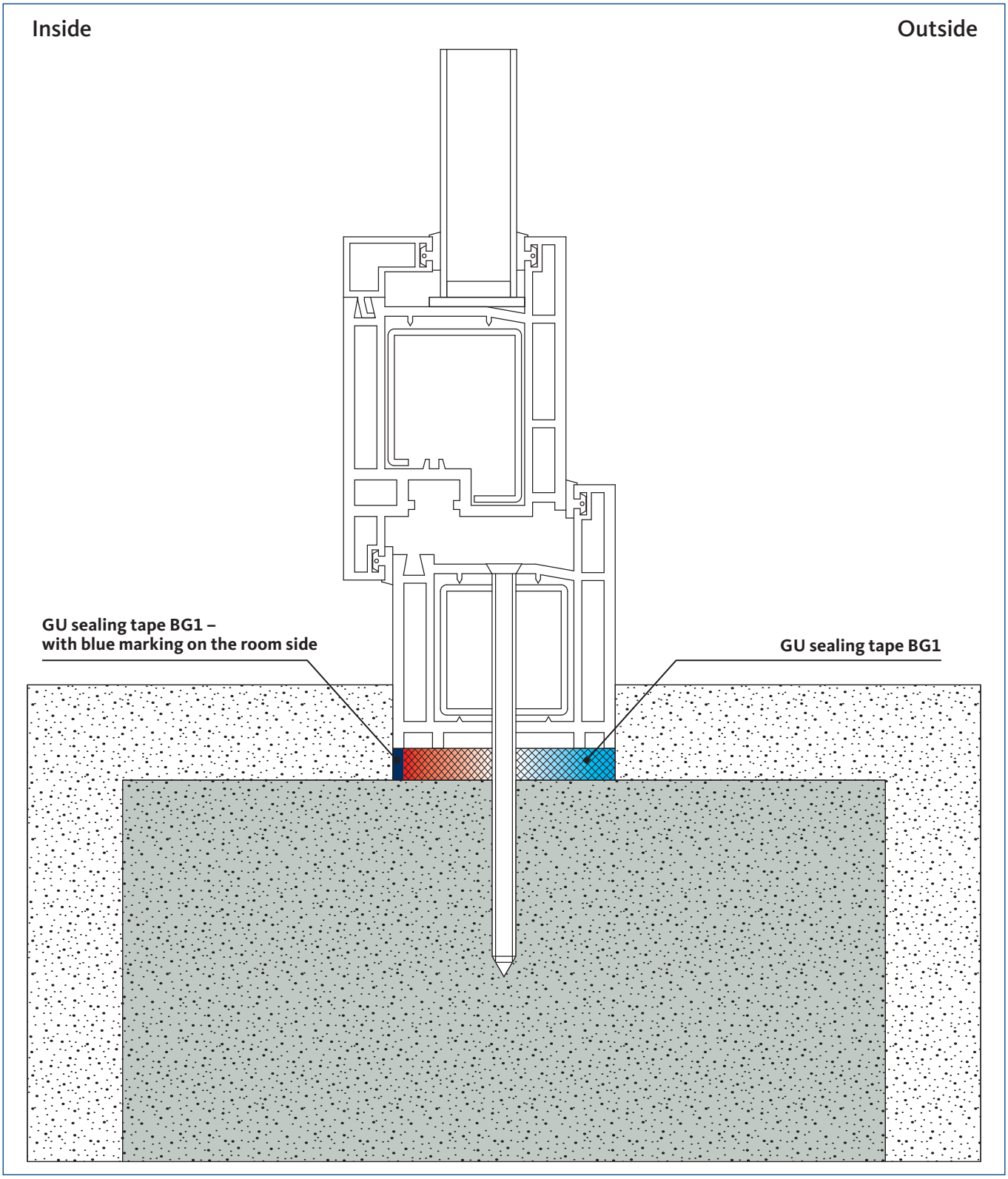
Geltungsdauer bis: 30. November 2020

Der Prüfbericht umfasst 5 Seiten.

Test report

GU sealing tape BG1

Installation sketch



GU sealing tape BG2

Product description

GU sealing tape BG2 is a specially impregnated precompressed multipurpose joint sealing tape which is intended specially for use in concealed installation situations subject to indirect weathering. It is used to provide a seal against air and driving rain at the connecting joints of windows and doors, while at the same time having thermal insulation characteristics over the entire depth.

GU sealing tape BG2 provides sealing that permits vapour diffusion to reliably ensure that the joint dries out thoroughly.

Product characteristics

- Meets the requirements of BG2 according to DIN 18542
- Seal a wide range of joints with just a few sheet sizes
- Simple and reliable window sealing during installation, in just one work step
- Real cost benefit due to time saved on installation
- Installation independent of the weather
- Meets the requirements of the EnEV and the principles of the RAL "Installation guidelines"
- Solvent-free, no hazardous substance
- 10 year functional guarantee

Applications

GU sealing tape BG2 is a multipurpose joint sealing tape for uncomplicated and time-saving sealing of window and door connections to provide tightness against driving rain of up to 300 Pa.

GU sealing tape BG2

Technical data and requirements

GU sealing tape BG2	Classification and grading	NF / ISO / DIN standard
Material description	impregnated flexible PUR foam	
Base	Acrylate polymer (modified)	
Stress group	BG2	DIN 18542
Impermeability to driving rain of joints	≥ 450 Pa	DIN EN 1027
Stress group	BG2	DIN 18542
Thermal stability	–20 °C up to +60 °C	DIN 18542
Workable up to	–5 °C	
Resistance to effects of light and weathering	Requirements fulfilled	DIN 18542
Compatibility with adjacent building materials	Requirements fulfilled	DIN 18542
Size tolerance	Requirements fulfilled	DIN 7715 T5 P3
Water vapour diffusion resistance μ	≤ 100	DIN EN ISO 12572
Vapour pressure gradient	Permits vapour diffusion from the outside	
Long-term durability	10 year functional guarantee	
Building material class	B2 (normally inflammable)	DIN 4102

Order information

Designation	Sheet width	Joint width	Delivery	Length of roll	Colour	PU	Article number
GU sealing tape BG2 for window sill connection	30 mm	4 – 9 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	30 m	Black	300 m	H-01838-00-0-0
	30 mm	6 – 15 mm		15 m	Black	150 m	H-01838-01-0-0
	30 mm	10 – 20 mm		12 m	Black	120 m	H-01838-02-0-0
	35 mm	4 – 9 mm		30 m	Black	240 m	H-01839-00-0-0
	35 mm	6 – 15 mm		15 m	Black	120 m	H-01839-01-0-0
	35 mm	10 – 20 mm		12 m	Black	96 m	H-01839-02-0-0
	40 mm	4 – 9 mm		30 m	Black	210 m	H-01840-00-0-0
	40 mm	6 – 15 mm		15 m	Black	105 m	H-01840-01-0-0
	40 mm	10 – 20 mm		12 m	Black	84 m	H-01840-02-0-0
GU sealing tape BG2	54 mm	4 – 9 mm	Pre-compressed rolls, self-adhesive on one side (assembly aid)	30 m	Black	210 m	H-01833-00-0-0
	54 mm	6 – 15 mm		15 m	Black	105 m	H-01833-01-0-0
	54 mm	10 – 20 mm		12 m	Black	84 m	H-01833-02-0-0
	64 mm	4 – 9 mm		30 m	Black	180 m	H-01834-00-0-0
	64 mm	6 – 15 mm		15 m	Black	90 m	H-01834-01-0-0
	64 mm	10 – 20 mm		12 m	Black	72 m	H-01834-02-0-0
	74 mm	4 – 9 mm		30 m	Black	150 m	H-01835-00-0-0
	74 mm	6 – 15 mm		15 m	Black	75 m	H-01835-01-0-0
	74 mm	10 – 20 mm		12 m	Black	60 m	H-01835-02-0-0
	84 mm	4 – 9 mm		30 m	Black	120 m	H-01836-00-0-0
	84 mm	6 – 15 mm		15 m	Black	60 m	H-01836-01-0-0
	84 mm	10 – 20 mm		12 m	Black	48 m	H-01836-02-0-0
	94 mm	4 – 9 mm		30 m	Black	120 m	H-01837-00-0-0
	94 mm	6 – 15 mm		15 m	Black	60 m	H-01837-01-0-0
	94 mm	10 – 20 mm		12 m	Black	48 m	H-01837-02-0-0

GU sealing tape BG2

Processing

- **Substrate/joint surface**
  Please remove dust, oil, grease, old sealing material and remnants of mortar etc. from the joint edges. The wall joint must be cleaned and pre-smoothed.
- **Determining the joint width**
  The joint edges must be parallel. Measure the joint widths and choose the corresponding sheet size for the joint tolerances that have been determined/are to be expected. Use the table of sizes to select the correct size of sheet for the window joint.
- **Installation**
  Cut off the over-compressed beginning and end pieces of the roll. Remove the backing from the self-adhesive foil and stick the pre-compressed sheet onto the cleaned, dry window frame. To ensure that no leakage spots form, please take care to ensure that the sheet is not stretched, as the sheet will pull back to its original length after a time. At corners, make an allowance of at least 1 cm per m. The sheet should be compressed in the corners in this case too. The sheet must not be guided in one piece all the way around the window frame. To ensure the best possible installation, the sheet is designed with delayed elastic recovery. This is temperature-dependent. At temperatures above 20 °C, the sheet should be kept cool, even at the building site. At low temperatures, it is recommended to warm the sheet before use. Complete elastic recovery of GU sealing tape BG2 can take up to 48 hours after installation. The blue side must always face toward the interior of the room.

  Pre-drill the sheet using a HSS drill bit in the area of the fastening screws, to ensure 100% expansion.

Storage

- Store in the unopened packaging in a cool (+1 °C to +20°C), dry place

General technical appraisal certificate

Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Prüfbericht Nr. 176299

1. Ausfertigung vom 22.11.2017

Auftraggeber	Gretsch-Unitas GmbH Baubeschläge Johann-Maus-Straße 3 71254 Ditzingen
Auftrag vom	09.11.2017
Inhalt des Auftrags	Zusammenfassung der Prüfergebnisse nach DIN 18542 Beanspruchungsgruppe BG2 für das Fugendichtungsband: „GU Fugendichtband - BG2 / 300"
Ausstellungsdatum	22. November 2017
Geltungsdauer bis	30. November 2020

Der Prüfbericht umfasst 5 Seiten.

Test report for GU sealing tape BG2

Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

MPA HANNOVER

Prüfbericht Nr. 176521
Rev. 1

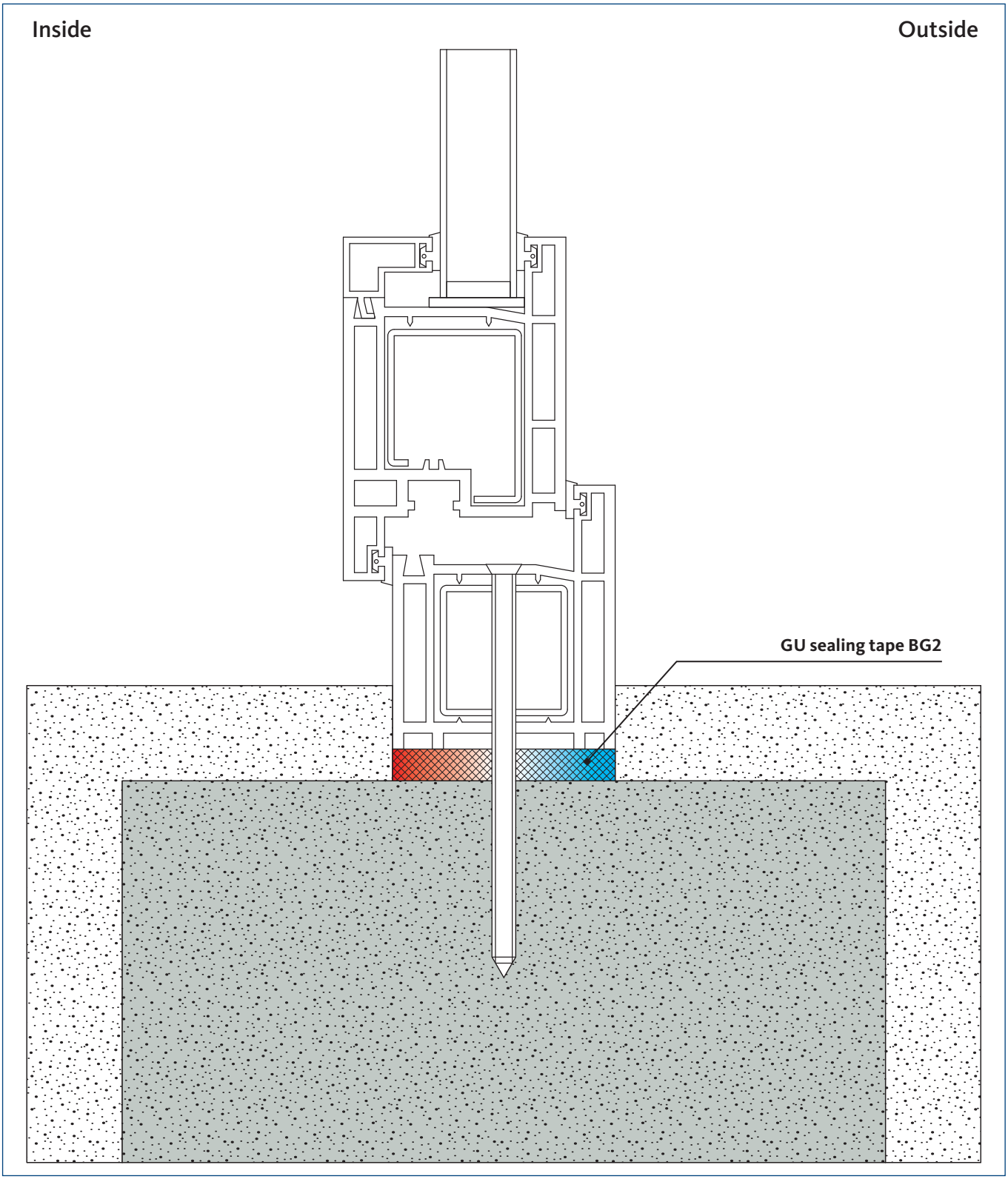
1. Ausfertigung vom 06.12.2017

Auftraggeber	Gretsch-Unitas GmbH Baubeschläge Johann-Maus-Straße 3 71254 Ditzingen
Auftrag vom	09.11.2017
Inhalt des Auftrags	Zusammenfassung der Prüfergebnisse nach DIN 18542 Beanspruchungsgruppe BG2/BGR für das Fugendichtungsband: „GU Dichtband - BG2"
Ausstellungsdatum	06. Dezember 2017
Geltungsdauer bis	30. November 2020

Der Prüfbericht umfasst 5 Seiten.

GU sealing tape BG2

Installation sketch



GU heat-insulating mat

Product characteristics

- Simple and easy installation
- Fits any shutter box
- Airtight and closed cell
- Energy saving

Applications

- To optimise the thermal insulation behaviour of shutter boxes

GU heat-insulating mat

Technical data and requirements

GU heat-insulating mat	Classification and grading	NF / ISO / DIN standard
Building material class	Corresponds to fire class B1	DIN 4102
Thermal conductivity	0.038 W/(m x K)	ISO 2581

Order information

Designation	Dimensions	Version	PU	Qty./Pallet	Article number
GU heat-insulating mat	Approx. 500 x 700 x 10 mm	–	1 pc	160	H-01429-01-0-0
	Approx. 500 x 700 x 20 mm	–	1 pc	80	H-01429-02-0-0
	Approx. 500 x 700 x 10 mm	Self-adhesive on one side	1 pc	160	H-01531-01-0-0
	Approx. 500 x 700 x 20 mm	Self-adhesive on one side	1 pc	80	H-01531-02-0-0

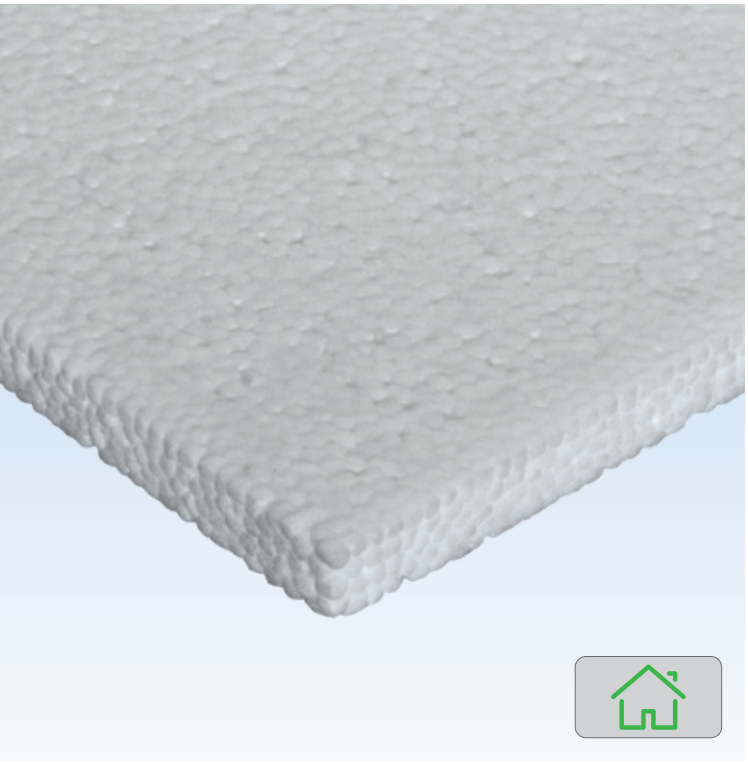
Processing

- Clean the shutter box to remove dust and other residues. Cut the GU heat-insulating mat to size with a sharp knife and stick in the desired position inside the shutter box.

Gluing

- In principle, it is possible to glue the mat into plastic, wood-based or concrete boxes. For gluing, we recommend GU ultra sealant or an equivalent, one-component sealing compound. When using other sealing compounds or glues, please test for compatibility.

GU sound absorbing mat



Product description

GU sound absorbing mat is a highly efficient sound absorbing mat made of closed cell expanded EPE which has been specially developed for the energy-saving renovation of existing shutter boxes without needing to change the window, shutter slats or blind. The material is extremely flexible and very easy to work with.

GU sound absorbing mat adapts to the local situation of the shutter box. No special tools are required for an exact cut, just a knife. One side is laminated with weatherproof special glue, meaning that there is no need for additional foam-filling or gluing.

Product characteristics

- Simple and easy installation without special tools
- Fits any shutter box
- Extremely flexible, high quality
- Ideally adapts itself to any structural situation
- Outstanding heat insulation
- Enhanced sound insulation due to special surface coating
- Airtight
- Energy saving

GU sound absorbing mat

Technical data and requirements

GU sound absorbing mat	Classification and grading	NF / ISO / DIN standard
Building material class	B2	DIN 12667
Sound insulation value Rw, P	34 dB	
Thermal conductivity (20 mm)	0.0391 W/(m x K)	

Order information

Designation	Dimensions	Version	PU	Article number
GU sound absorbing mat	Approx. 600 x 700 x 10 mm	–	1 pc	H-01514-01-0-0
	Approx. 600 x 700 x 20 mm	–	1 pc	H-01514-02-0-0
	Approx. 600 x 700 x 10 mm	Self-adhesive on one side	1 pc	H-01513-01-0-0
	Approx. 600 x 700 x 20 mm	Self-adhesive on one side	1 pc	H-01513-02-0-0
Special thicknesses on request				

Processing

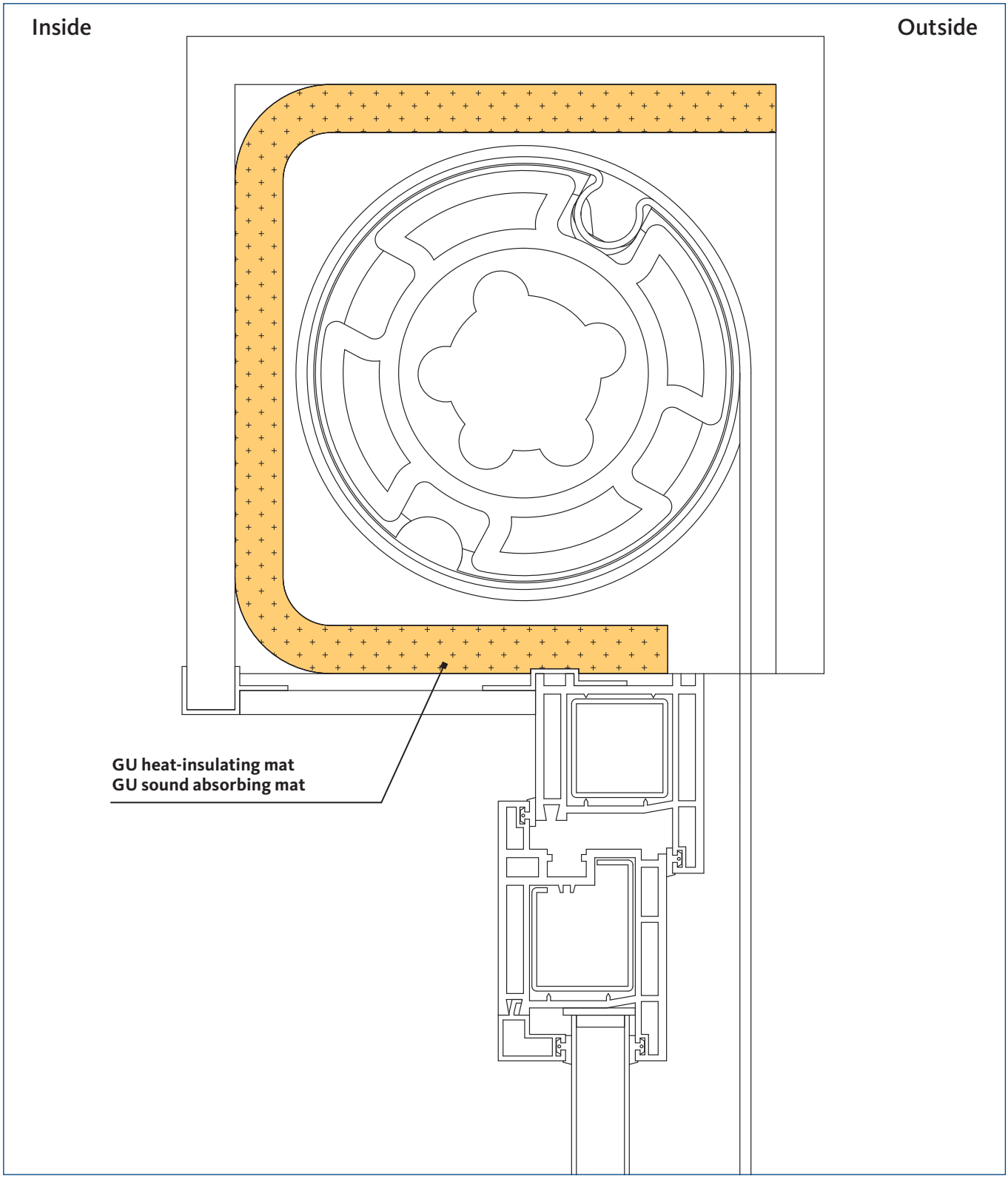
- Close shutters completely. Unscrew the lid of the shutter box and reveal the blind shaft. Clean the rolling area of the shutter box from dust and bits of plaster by vacuuming or wiping. Cut the GU sound absorbing mat to the size of the head pieces (shaft bearing sides) with a sharp knife.
  Attention: first check dimensions, then peel off the film and stick GU sound absorbing mat into the head end (shaft bearing side)
- Cut the mat to the right length, fit exactly and stick in. If there is a self-adhesive side, first uncover a section of approx. 10 cm of the adhesive film. Simply cut off the excess GU sound absorbing mat.
- To secure the GU sound absorbing mat, screw in one screw above and below the shaft per metre

Gluing

- The head pieces and mat are stuck in by way of a self-adhesive side or using GU ultra sealant. The substrates must be clean, dry, and free of dust and grease. **Important: do not touch the adhesive surfaces.**
- In principle, it is possible to glue the mat into plastic, wood-based or concrete boxes. For gluing, we recommend GU ultra sealant or an equivalent, one-component sealing compound. When using other sealing compounds or glues, please test for compatibility.

GU heat-insulating mat / GU sound absorbing mat

Installation sketch



GU heat-insulating mat / GU sound absorbing mat

Test report for GU heat-insulating mat

MPA NRW.
Materialprüfungsamt Nordrhein-Westfalen
PRÜFEN • ÜBERWACHEN • ZERTIFIZIEREN

PRÜFBERICHT Nr. 420002519 14-3

Prüflaboratorium
Abteilung 2, Dezernat 23
Wärmeschutz, organische Baustoffe, analytische Chemie

Auftraggeber
Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

Auftragsdatum: 29.10.2014
Eingang der Proben: 03.11.2014
Datum der Probenahme: nicht amtlich
Datum der Prüfung: 03.11-13.11.2014

Auftrag
Bestimmung der Wärmeleitfähigkeit nach DIN EN 12 667 bei 10°C und 40°C Mitteltemperatur

Beschreibung des Prüfgegenstandes/Anzahl der Proben/Probenbezeichnung
Polyolefinschaumstoff mit der Bezeichnung: „PE RG 30 FRB"
3 Probekörper mit den Abmessungen: 550 x 550 x 20 [mm]
mittlere Rohdichte: 28 kg/m³

Beschreibung der Prüfung/der zugrundeliegenden Prüfverfahren
Bestimmung der Wärmeleitfähigkeit nach DIN EN 12 667 mit dem Plattengerät.

Ergebnis der Prüfung
Die Einzelwerte der Prüfung sind in der Anlage zu diesem Prüfbericht zusammengefasst.

Dortmund, den 14.11.2014
Im Auftrag

Dipl.-Ing. (FH) Sonntag
Sachbearbeiter

Dipl.-Ing. Bertram
Leiter der Überwachungsstelle

Test report for GU sound absorbing mat

SWA

Zusammenfassender-Prüfbericht 1411/216

Zum Prüfbericht-Nummer: **F.2-580/08**
08-12-09A LS ; 08-12-09B LS
431540-02
18-03-10A LS ; 18-03-10B LS
431540-01
Namensänderung auf GU Schalldämmmatte, die ursprüngliche Produktbezeichnung ist in den original Prüfberichten aufgeführt.

Auftraggeber Gretsch - Unitas GmbH
Johann - Maus - Str.3
71254 Ditzingen

Aachen, 10.12.2014

Produkt: **GU Schalldämmmatte**

GU Schalldämmmatte	Prüfstelle	Prüfberichts-Nr.	Ergebnis [4]	Einheit
Wärmeleitfähigkeit (Standard & S)	FIW München	F.2-580/08	λ = 0,039 [2]	W/mK
GU Schalldämmmatte 20 mm				
Bewertetes Schalldämmmaß	SWA GmbH	18-03-10A LS	Rolladenkasten ohne Sanierungsmatte: R_w (C; C_{tr})= 33 (-1;-3) [3]	dB
		18-03-10B LS	Rolladenkasten mit Sanierungsmatte: R_w (C; C_{tr})= 41 (-2;-6) [3]	dB
Brandverhalten (von 15-30mm)	TFI	431540-01	E	-

1) Die Randbedingungen und Materialdaten sind in den jeweiligen Prüfberichten dargestellt.
2) Grundlagen: Grundlagen: EN 13667 : 2001-05 / WLF bei 10°C, trocken
3) Grundlagen: EN ISO 10140-1 : 2010-12 ; EN ISO 10140-2 : 2010-12 ; EN ISO 717-1 : 2013-06
4) Grundlagen: EN ISO 11925-2 : 2010 ; EN 13501-1 : 2010-01

Die Ermittlung des Wärmedurchgangskoeffizienten wurde durch die FIW München – Forschungsinstitut für Wärmeschutz e.V. München – durchgeführt.

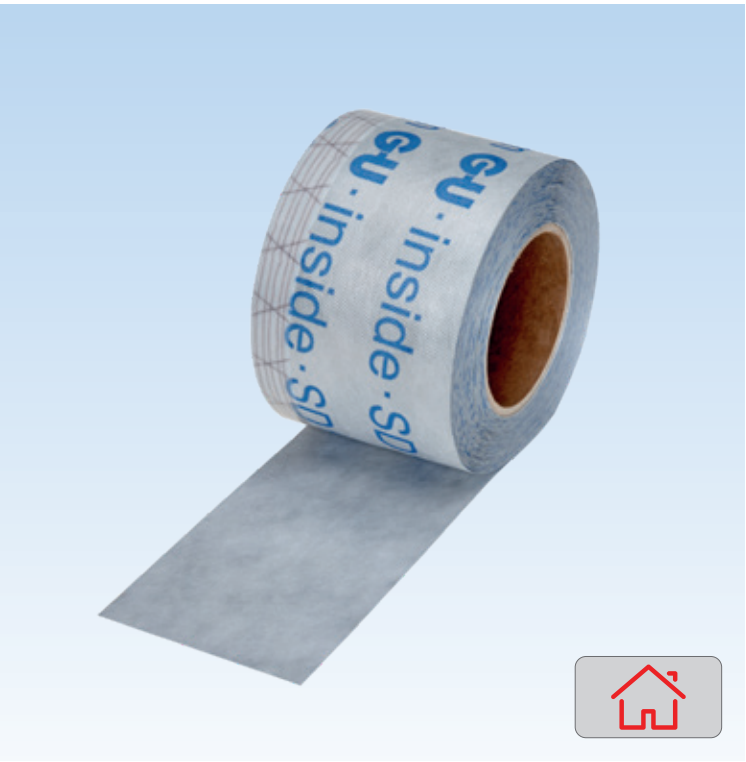
Das bewertete Schalldämmmaß des Rolladenkasten aus Styropor / Heraklith mit GU Schalldämmmatte 20 mm wurde mit und ohne EPE S selbstklebend gedämmt, im Fensterprüfstand des Labors der SWA GmbH, geprüft. Außenabmessungen: 300 mm x 300 mm x 1200 mm.

Das Brandverhalten der GU Schalldämmmatte EPE Standard und EPE S wurde im TFI – Textiles & Flooring Institute GmbH an Probematerial, nach DIN EN ISO 11925-2:2010 geprüft. Die Prüfergebnisse gelten nur für die Verwendung als Sanierungsmatte unverklebt oder verklebt auf mineralischen Trägerplatten und sind nicht als einziges Kriterium zur Bewertung der potenziellen Brandgefahr der Sanierungsmatte im Anwendungsfall zu verstehen.

Die Randbedingungen und Materialdaten sind in den jeweiligen Prüfberichten dargestellt.

(Dr.-Ing. A. Siebel)

GU window sealing tape – internal use



Product characteristics

- Watertight to EN 20811
- Diffusion resistant
- Water vapour transmission value sd = 1500 m
- Nonwoven coating on both sides
- Versatile application
- UV stabilised
- Self-adhesive on one side
- Can be plastered-over/painted-over
- Tested by ift, Rosenheim
- Tested by Analytik Aurachtal GmbH (DGNB and LEED suitability)

Applications

- For vapour diffusion-tight bridging of the joint between window, door and structure in the interior
- It is also suitable for metal and conservatory construction

GU window sealing tape – internal use

Technical data and requirements

GU window sealing tape – internal use	Classification and grading	NF / ISO / DIN standard
Laminate composition	PES – ALU – PES	
Weight	130.45 g/m²	EN 29073-1
Thickness	0.60 mm	DIN 53 855
Determining the concentration	DGNB and LEED suitability	
Tear-out force		
Longitudinal	459 N/5cm	EN 12311-1
Transverse	367 N/5cm	EN 12311-1
Elongation at break		
Longitudinal	69%	EN 12311-1
Transverse	69%	EN 12311-1
Water vapor diffusion equivalent air layer thickness sd-value	< 1500	
Watertightness	< 3600	EN 20811
Fire behaviour	B2	DIN 4102
Thermal stability	–40°C +80°C	
Natural weathering / UV	No external use	

Order information

Designation	Packaging	Length of roll	Width of roll	PU	Article number
GU window sealing tape – internal use	Rollers	25 m	50 mm	100 m	H-01443-05-0-0
		25 m	75 mm	100 m	H-01443-07-0-0
		25 m	100 mm	100 m	H-01443-10-0-0
		25 m	150 mm	100 m	H-01443-15-0-0
		25 m	200 mm	100 m	H-01443-20-0-0
		25 m	250 mm	100 m	H-01443-25-0-0
		25 m	300 mm	100 m	H-01443-30-0-0
		25 m	350 mm	100 m	H-01443-35-0-0
		25 m	400 mm	100 m	H-01443-40-0-0

GU window sealing tape – internal use

Processing

- The GU aluminium window sealing tape is stuck to the window frame. Depending on the construction this is done before or after the installation of the window.
- Afterwards the joint is filled with GU PU foam. Once the foam has cured, the tape is attached to the building structure over its whole surface using GU sealant, with no air spaces.
- The sheet joints are sealed with GU sealing compound
- The GU aluminium window sealing tape for internal use can be plastered-over or painted-over

Building component testing

Bauteilprüfung

Luftdichtheit und Schlagregendichtheit von Abdichtungssystemen zwischen Fenster und Baukörper im Neuzustand sowie nach simulierten Kurzzeitbelastungen

Prüfbericht
Nr. 12-001394-PR01
(PB-E03-02-de-01)

ift ROSENHEIM

Auftraggeber
Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
Deutschland

Prüfobjekt/Bauteil: Abdichtungssystem zwischen Fenster und Baukörper

Dämmung: ① 1K PU-Ortschaum

Abdichtung: raumseitig umlaufend:
② GU-Fensterdichtband Innen Alu mit Selbstklebung (Rahmen) und MS-Polymer-Klebstoff (Mauerwerk)
außenseitig umlaufend:
③ GU-Fensterdichtband Außen mit Selbstklebung (Rahmen) und MS-Polymer-Klebstoff (Mauerwerk)

Verputztes Mauerwerk aus Hochlochziegel mit stumpfer Leibungsausbildung. Kunststofffenster mit Stahlarmierung im Flügel- und Blendrahmen.
Befestigung zum Baukörper umlaufend mit Rahmenschrauben.
Befestigungsabstände ≤ 700 mm.
Abdichtung raum- und außenseitig zwischen Blendrahmen und glattgestrichener Mauerleibung. Verarbeitung nach den Vorgaben des ursprünglichen Auftraggebers.
Außen Aluminium-Fensterbank mit aufgesteckten Endstücken.
Raumseitig luftdichter und außenseitig schlagregendichter Fugenabschluss zwischen Außenwand und Fenster bzw. Fenstertüren aus weißen PVC-Hohlkammerprofilen mit gleichwertiger Ausführung, wie oben beschrieben.

Besonderheiten: -/-

Ergebnisse *)

Luftdurchlässigkeit bis zu ± 1000 Pa, im Neuzustand	a < 0,1 m³/(m h daPa^2/3)
Simulierte Kurzzeitbelastungen (Temperaturwechsel, Wind, Nutzung)	visuell keine Beeinträchtigung der Anschlussfugen
Luftdurchlässigkeit bis zu ± 1000 Pa, nach simulierten Kurzzeitbelastungen	a < 0,1 m³/(m h daPa^2/3)
Schlagregendichtheit bis 600 Pa, nach simulierten Kurzzeitbelastungen	kein Wassereintritt

*) Einzelergebnisse siehe Prüfbericht Abschnitt 3

ift Rosenheim
11. Mai 2012

Jörn Peter Lass, Dipl.-Ing. (FH)
Prüfstellenleiter
Bauteile

Wolfgang Jehl, Dipl.-Ing. (FH)
Produktingenieur
Baustoffe & Holzbaugen

Determining the concentration (DGNB/LEED suitability)

Analytik Aurachtal

Analytik Aurachtal GmbH
Wirtshöhe 6
91086 Aurachtal
Tel.: (0049) 9132 75034-0
Fax.:(0049) 9132 75034-29
www.analytik-aurachtal.com
info@analytik-aurachtal.com

Analytik Aurachtal GmbH • Wirtshöhe 6 • 91086 Aurachtal

Gretsch- Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

15. August 2018
Seite 1 von 5

Labornummer:	E807134	Auftragsdatum:	13.07.2018
Bearbeiter:	C. Korbacher	Eingangsdatum:	16.07.2018
Untersuchungszeitraum:	28.06. – 14.08.2018	Bestellnummer:	2018-31267

Laborbericht

Untersuchungsproben: GU-Bänder

Proben: 3x Materialprobe

Untersuchungsauftrag:

Analytik Aurachtal wurde im Rahmen einer Konzentrationsermittlung beauftragt (DGNB- und LEED-Eignung), das Material auf Flammschutzmittel, leichtflüchtige organische Verbindungen und Formaldehyd sowie auszugsweise auf Metalle zu untersuchen. Die Beauftragung erfolgte mit Zusendung der Proben.

Die Proben wurden vom Auftraggeber genommen und eingeschickt. Die Untersuchungsergebnisse berücksichtigen ausschließlich die eingesandten und untersuchten Proben.

Durch die DAkkS nach DIN EN ISO/IEC 17025 akkreditiertes Prüflaboratorium. Die Akkreditierung gilt nur für die in der Urkunde aufgeführten Prüfverfahren. Akkreditierte Prüfverfahren sind im Bericht zusätzlich mit „a" gekennzeichnet.
Anmerkungen, Beurteilungen und zusammenfassende Beurteilungen sind nicht akkreditierbar.
Die Prüfergebnisse beziehen sich ausschließlich auf die Prüfgegenstände. Nur unterschriebene Berichte sind rechtsgültig. Die auszugsweise Veröffentlichung des Berichtes ohne unsere schriftliche Genehmigung ist nicht zulässig.

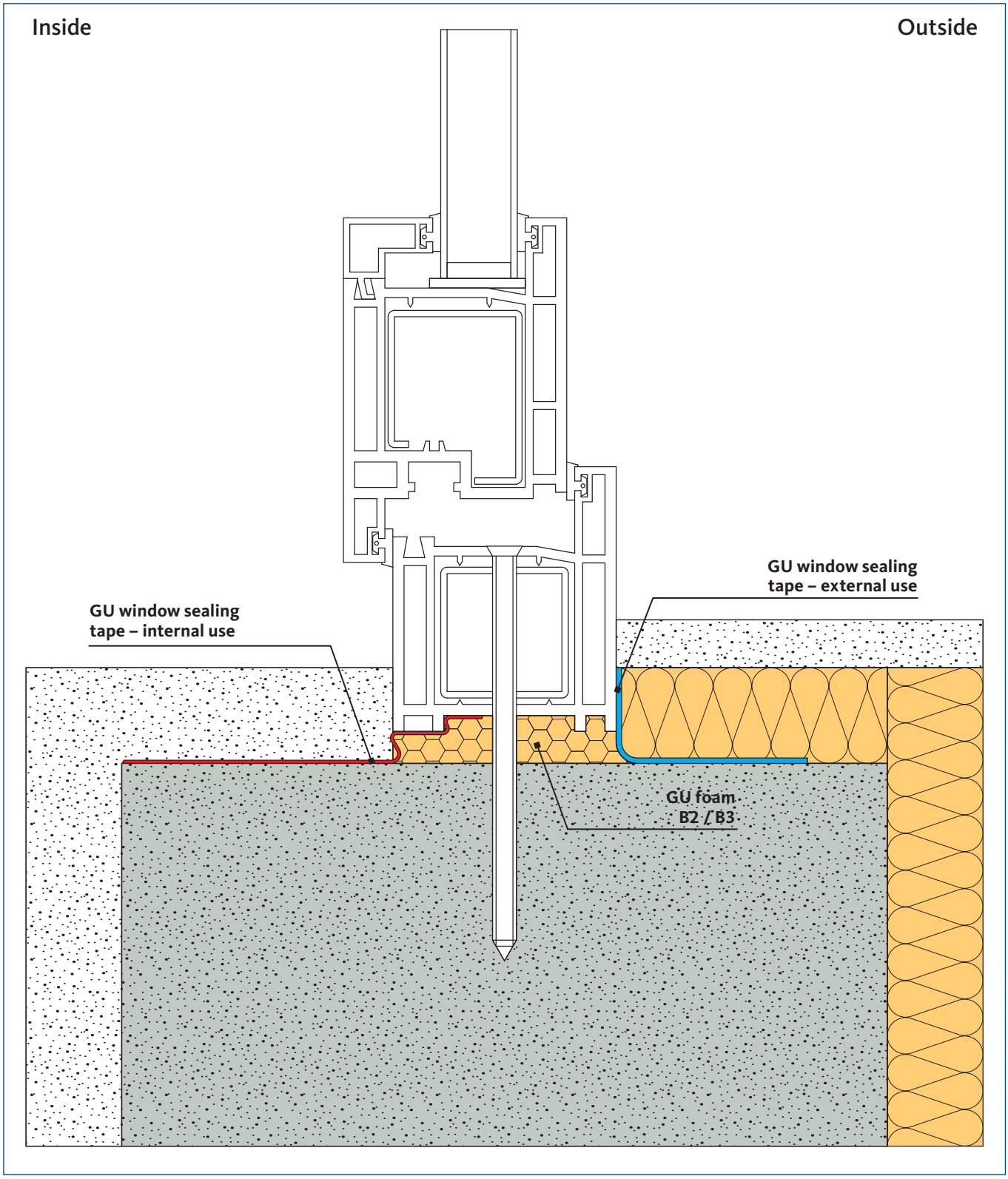
Hypo Vereinsbank Herzogenaurach
Kontonummer: 16 904 511
Bankleitzahl: 763 200 72
Ust. Ident. Nr.: DE 815333348

SWIFT (BIC): HYVEDEMM417
IBAN: DE32 7632 0072 0016 9045 11
Registergericht: Amtsgericht Fürth
Handelsregister-Nr: HRB 13281

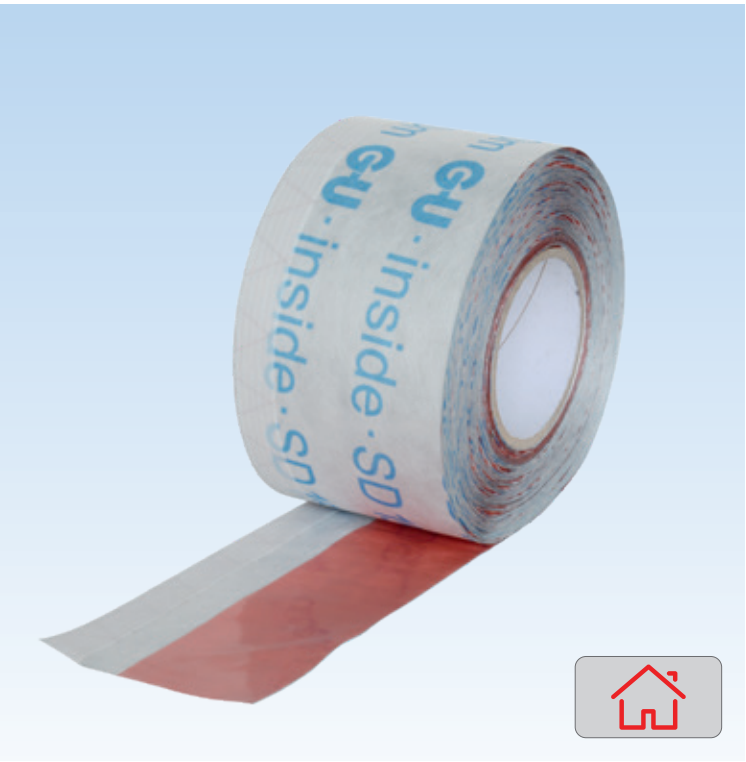
Geschäftsführer:
Dr. Thomas Wirkner, Dipl. Chem.
Christian Scheid, Dipl.-Ing. (FH)
Dr. Thomas Forst, Dipl. Chem.

GU window sealing tape – internal use

Installation sketch



GU window sealing tape – internal use, self-adhesive



Product characteristics

- Self-adhesive on both sides, for masonry frame
- Also self-adhesive for external window ledge connection
- Watertight to EN 20811
- Diffusion resistant
- Water vapour transmission value sd = 1500 m
- Versatile application
- UV stabilised
- Can be plastered-over/painted-over
- Tested by ift, Rosenheim
- Tested by Analytik Aurachtal GmbH (DGNB and LEED suitability)

Applications

- For vapour diffusion-tight bridging of the joint between window, door and structure in the interior
- It is also suitable for metal and conservatory construction

GU window sealing tape – internal use, self-adhesive

Technical data and requirements

GU window sealing tape – internal use, self-adhesive	Classification and grading	NF / ISO / DIN standard
Laminate composition	PES – ALU – PES	
Weight	130.45 g/m²	EN 29073-1
Thickness	0.60 mm	DIN 53 855
Determining the concentration	DGNB and LEED suitability	
Tear-out force		
Longitudinal	459 N/5cm	EN 12311-1
Transverse	367 N/5cm	EN 12311-1
Elongation at break		
Longitudinal	69%	EN 12311-1
Transverse	69%	EN 12311-1
Water vapor diffusion equivalent air layer thickness sd-value	< 1500	
Watertightness	< 3600	EN 20811
Fire behaviour	B2	DIN 4102
Thermal stability	–40°C +80°C	
Natural weathering / UV	No external use	

Order information

Designation	Packaging	Length of roll	Width of roll	PU	Article number
GU window sealing tape – internal use, self-adhesive	Rollers	25 m	75 mm	100 m	H-01518-07-0-0
		25 m	100 mm	100 m	H-01518-10-0-0
		25 m	150 mm	100 m	H-01518-15-0-0
		25 m	200 mm	100 m	H-01518-20-0-0
		25 m	250 mm	100 m	H-01518-25-0-0

GU window sealing tape – internal use, self-adhesive

Processing

- **Substrate/joint surface**
  Surface treatment: please check the adhesion properties and compatibility of the substrate. Pretreat the substrate with GU primer if necessary.
- The GU aluminium window sealing tape is stuck to the window frame. Depending on the construction this is done before or after the installation of the window.
- Afterwards the joint is filled with GU PU foam
- Firmly press the self-adhesive GU window sealing tape for internal use on to the building structure with the GU pressure roller
- The GU aluminium window sealing tape for internal use can be plastered-over or painted-over

Building component testing

Nachweis

Prüfbericht
Nr. 14-003427-PR02

ift ROSENHEIM

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
Deutschland

Fugendichtungsfolien für Baukörperanschlüsse

selbstklebend, Dispersionskleber auf Polyacrylatbasis

GU Fensterdichtband Außen selbstklebend (Varianten A.-F.), GU Fensterdichtband in/out selbstklebend (Varianten A.-F.), GU Fensterdichtband Innen selbstklebend (Varianten A.-F.)

Referenzband mit Butylselbstklebestreifen (Variante B.3, Referenzprobe)

A. Ziegel B. Ziegel mit Glattstrich C. Beton D. Kalksandstein E. Leichtbeton F. Porenbeton

lösemittelfreier Primer/- Haftkleber (Varianten A.1 bis F.1) bzw. lösemittelhaltiger Primer (Variante B.3, Referenzprobe)

Variante		Haftfestigkeit in N/mm² (Mittelwertangaben)			
		GU Fensterdichtband Außen selbstklebend	GU Fensterdichtband in/out selbstklebend	GU Fensterdichtband Innen selbstklebend	Referenzprobe
A.	1	0,062	0,037	0,056	-/-
	2	0,047	0,041	0,033	-/-
	3	-/-	-/-	-/-	0,035
B.	1	0,061	0,041	0,057	-/-
	2	0,044	0,045	0,034	-/-
C.	1	0,077	0,044	0,064	-/-
	2	0,061	0,053	0,047	-/-
D.	1	0,072	0,048	0,072	-/-
	2	0,068	0,061	0,050	-/-
E.	1	0,062	0,047	0,061	-/-
	2	0,051	0,046	0,033	-/-
F.	1	0,064	0,043	0,055	-/-

ift Rosenheim
03.12.2014

Wolfgang Jehl, Dipl.-Ing. (FH)
Stv. Prüfstellenleiter
Baustoffe & Haftzeuge

Christian Neubecker
Prüfingenieur
Materialprüfung

Determining the concentration (DGNB/LEED suitability)

Analytik Aurachtal

Analytik Aurachtal GmbH
Wirtshöhe 6
91086 Aurachtal
Tel.: (0049) 9132 75034-0
Fax.:(0049) 9132 75034-29
www.analytik-aurachtal.com
info@analytik-aurachtal.com

Analytik Aurachtal GmbH • Wirtshöhe 6 • 91086 Aurachtal

Gretsch- Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

15. August 2018
Seite 1 von 5

Labornummer: E807134
Bearbeiter: C. Korbacher
Untersuchungszeitraum: 28.06. – 14.08.2018

Auftragsdatum: 13.07.2018
Eingangsdatum: 16.07.2018
Bestellnummer: 2018-31267

Laborbericht

Untersuchungsproben: GU-Bänder

Proben: 3x Materialprobe

Untersuchungsauftrag:

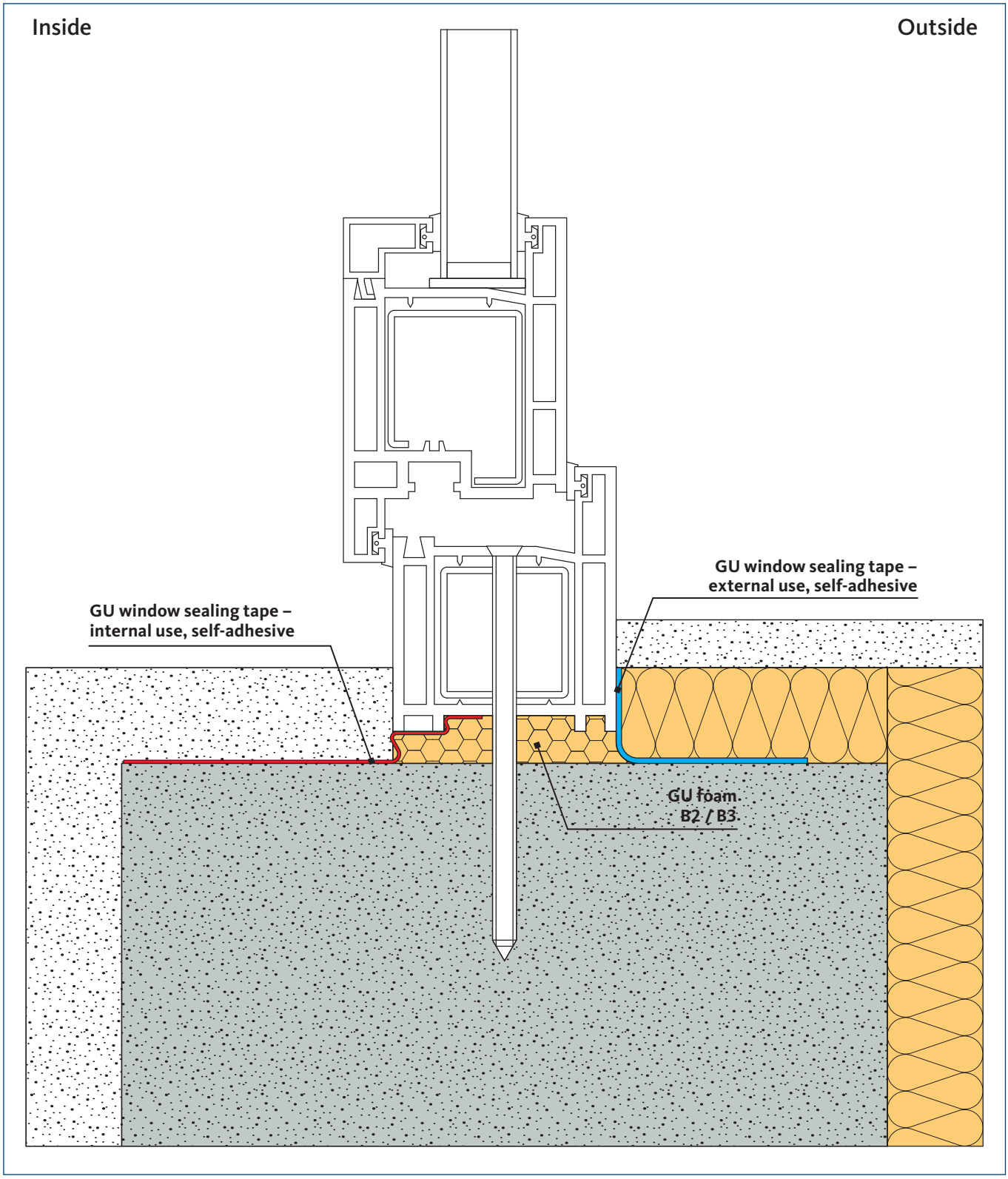
Analytik Aurachtal wurde im Rahmen einer Konzentrationsermittlung beauftragt (DGNB- und LEED-Eignung), das Material auf Flammschutzmittel, leichtflüchtige organische Verbindungen und Formaldehyd sowie auszugsweise auf Metalle zu untersuchen. Die Beauftragung erfolgte mit Zusendung der Proben.

Die Proben wurden vom Auftraggeber genommen und eingeschickt. Die Untersuchungsergebnisse berücksichtigen ausschließlich die eingesandten und untersuchten Proben.

DAkkS

GU window sealing tape – internal use, self-adhesive

Installation sketch



GU Powertape, inside, completely self-adhesive

Product characteristics

- Self-adhesive on both sides, for masonry frame
- Also self-adhesive surface bonding for external window ledge connection
- Watertight to EN 20811
- Diffusion resistant
- Water vapour transmission value sd = 30 m
- Versatile application
- UV stabilised
- Can be plastered-over / painted-over
- Tested by ift, Rosenheim
- Application range to –10°C
- Tested by Analytik Aurachtal GmbH (DGNB and LEED suitability)

Applications

- For vapour diffusion-tight sealing of the joint between window, door and structure in the interior
- It is also suitable for metal and conservatory construction

GU Powertape, inside, completely self-adhesive

Technical data and requirements

GU Powertape, inside, completely self-adhesive	Classification and grading	NF / ISO / DIN standard
Laminate composition	PES – ALU – PES	
Weight	100 g/m²	EN 29073-1
Thickness	0.40 mm	DIN 53 855
Determining the concentration	DGNB and LEED suitability	
Tear-out force		
Longitudinal	380 N/5cm	EN 12311-1
Transverse	80 N/5cm	EN 12311-1
Elongation at break		
Longitudinal	20%	EN 12311-1
Transverse	130%	EN 12311-1
Water vapor diffusion equivalent air layer thickness sd-value	< 30 m	
Watertightness		EN 20811
Fire behaviour	B2/E	DIN 4102 13501-1
Thermal stability	–40°C +80°C	
Natural weathering / UV	No external use	

Order information

Designation	Packaging	Length of roll	Width of roll	PU	Article number
GU Powertape, inside, completely self-adhesive	Rollers	25 m	75 mm	100 m	H-01869-07-0-0
		25 m	100 mm	100 m	H-01869-10-0-0
		25 m	150 mm	100 m	H-01869-15-0-0
		25 m	200 mm	100 m	H-01869-20-0-0
		25 m	250 mm	100 m	H-01869-25-0-0

GU Powertape, inside, completely self-adhesive

Processing

- **Substrate/joint surface**
  Surface treatment: please check the adhesion properties and compatibility of the substrate. Pretreat the substrate with GU primer if necessary.
- The GU power tape is glued to the window frame. with the self-adhesive strip. Depending on the construction this is done before or after the installation of the window.
- Afterwards the joint is filled with GU PU foam
- Firmly press the GU power full surface-bonding tape for internal use onto the building structure with the GU pressure roller
- The GU power tape for internal use can now be levelled, plastered-over or painted-over

Building component testing

Nachweis

Haftfestigkeitsprüfung an Fugendichtungsfolien im Scherversuch

Prüfbericht
Nr. 14-003427-PR02
(PB-K07-09-de-01)

ift ROSENHEIM

Auftraggeber: Gretsch-Unitas GmbH, Baubeschläge, Johann-Maus-Str. 3, 71254 Ditzingen, Deutschland

Produkt: Fugendichtungsfolien für Baukörperanschlüsse

Bezeichnung: selbstklebend, Dispersionskleber auf Polyacrylatbasis in Verbindung mit den Fugendichtungsfolien GU Fensterdichtband Außen selbstklebend (Varianten A.-F.), GU Fensterdichtband in/out selbstklebend (Varianten A.-F.), GU Fensterdichtband Innen selbstklebend (Varianten A.-F.)
Fugendichtungsfolie: Referenzband mit Butylselbstklebestreifen (Variante B.3, Referenzprobe)

Leistungsrelevante Produktdetails: Untergründe: A. Ziegel B. Ziegel mit Glattstrich C. Beton D. Kalksandstein E. Leichtbeton F. Porenbeton
Vorbehandlung mit: lösemittelfreier Primer/- Haftkleber (Varianten A.1 bis F.1) bzw. lösemittelhaltiger Primer (Variante B.3, Referenzprobe)

Besonderheiten: -/-

Ergebnis

Varianten*		Haftfestigkeit in N/mm² (Mittelwertangaben) GU Fensterdichtband Außen selbstklebend	GU Fensterdichtband in/out selbstklebend	GU Fensterdichtband Innen selbstklebend	Referenzprobe
A.	1	0,062	0,037	0,056	-/-
	2	0,047	0,041	0,033	-/-
B.	3	-/-	-/-	-/-	0,035
	1	0,061	0,041	0,057	-/-
	2	0,044	0,045	0,054	-/-
C.	1	0,077	0,044	0,064	-/-
	2	0,061	0,053	0,047	-/-
D.	1	0,072	0,048	0,072	-/-
	2	0,068	0,061	0,056	-/-
E.	1	0,062	0,047	0,051	-/-
	2	0,051	0,046	0,033	-/-
F.	1	0,084	0,043	0,055	-/-

* 1 grundiert mit lösemittelfreier Primer/- Haftkleber, 2 unbehandelt, 3 grundiert mit lösemittelhaltiger Primer

ift Rosenheim
03.12.2014

Wolfgang Jehl, Dipl.-Ing. (FH), Stv. Prüfstellenleiter, Baustoffe & Halbzeuge

Christian Neudecker, Prüfingenieur, Materialprüfung

Determining the concentration (DGNB/LEED suitability)

Analytik Aurachtal

Analytik Aurachtal GmbH
Wirtshöhe 6
91086 Aurachtal
Tel.: (0049) 9132 75034-0
Fax.: (0049) 9132 75034-29
www.analytik-aurachtal.com
info@analytik-aurachtal.com

Analytik Aurachtal GmbH • Wirtshöhe 6 • 91086 Aurachtal

Gretsch- Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

15. August 2018
Seite 1 von 5

Labornummer:	E807134	Auftragsdatum:	13.07.2018
Bearbeiter:	C. Korbacher	Eingangsdatum:	16.07.2018
Untersuchungszeitraum:	28.06. – 14.08.2018	Bestellnummer:	2018-31267

Laborbericht

Untersuchungsproben: GU-Bänder

Proben: 3x Materialprobe

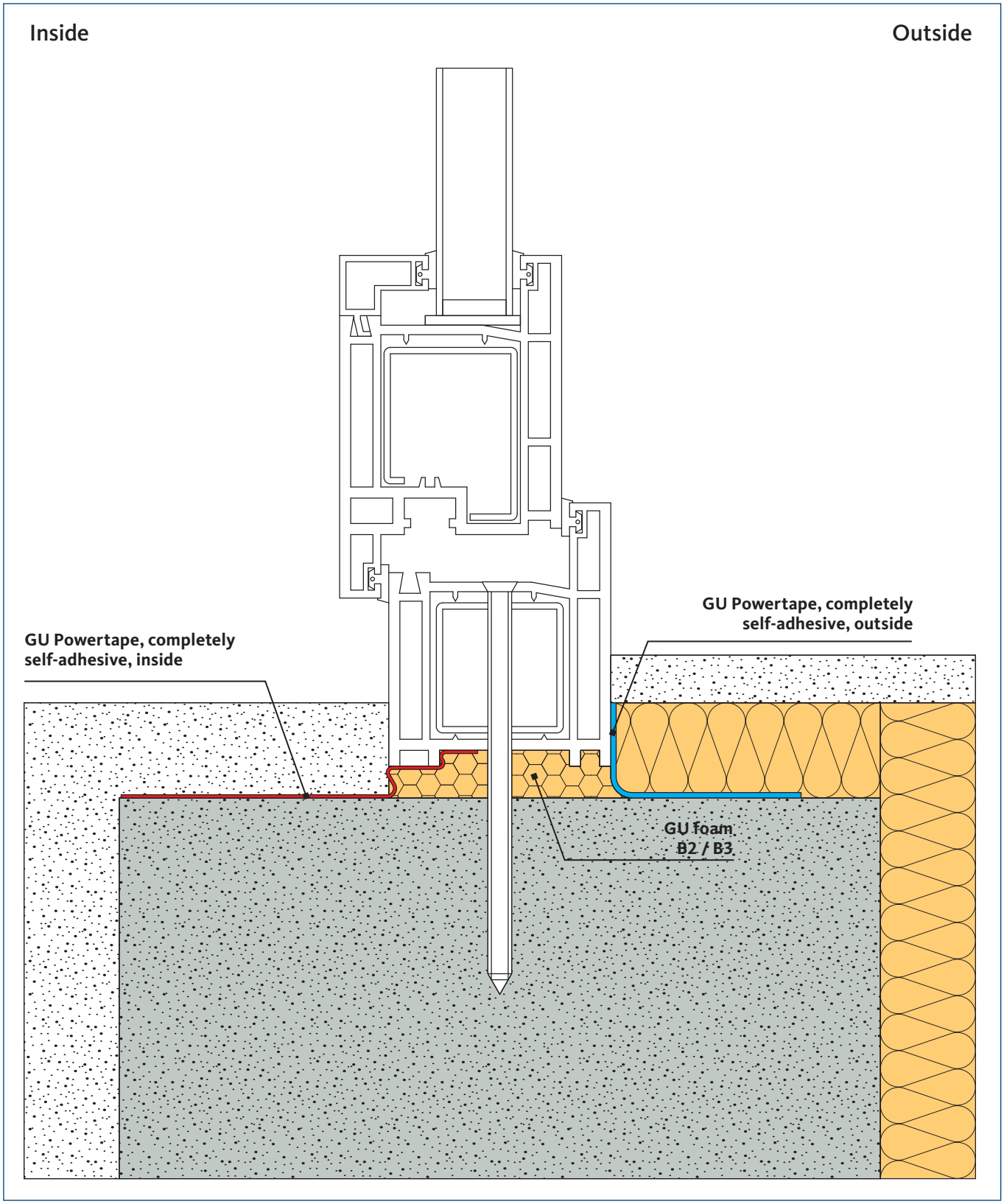
Untersuchungsauftrag:

Analytik Aurachtal wurde im Rahmen einer Konzentrationsermittlung beauftragt (DGNB- und LEED-Eignung), das Material auf Flammschutzmittel, leichtflüchtige organische Verbindungen und Formaldehyd sowie auszugsweise auf Metalle zu untersuchen. Die Beauftragung erfolgte mit Zusendung der Proben.

Die Proben wurden vom Auftraggeber genommen und eingeschickt. Die Untersuchungsergebnisse berücksichtigen ausschließlich die eingesandten und untersuchten Proben.

GU Powertape, inside, completely self-adhesive

Installation sketch



GU joint sealing compound – internal use

Product description

GU joint sealing compound – internal use is a high-quality, plastoelastic, one-component compound with an acrylic dispersion base.

Product characteristics

- Very good workability
- Solvent- and silicone-free
- Low water vapour transmission properties
- Maximum total deformation 15%
- Colourfast
- Weatherproof and UV-resistant
- Waterproof after curing
- Very good adhesion to moist, absorbent substrates, such as hard PVC, coated timber and anodised aluminium
- Very good coating compatibility in accordance with DIN 52452 once completely cured
- Can be readily plastered or papered over

Applications

- Durable, airtight internal seal for connecting joints between masonry and door or window frames
- Joints and cracks that are subject to small loads, in masonry, concrete, plaster and windowsills, shutter boxes, baseboards and floors
- Connecting joints (horizontal) for porous concrete buildings
- To seal panel joints, seams and overlaps in machine and metal structures and in air conditioning and ventilation systems
- Sealing welded joints in vehicle, ship and container construction
- Product for repairing

GU joint sealing compound – internal use

Technical data and requirements

GU joint sealing compound – internal use	Classification and grading	NF / ISO / DIN standard
Base	1 component acrylic dispersion	
Consistency	Stable paste	
Curing method	Physical drying by evaporation of water at room temperature	
Film formation time [1]	Surface dry after approx. 30 minutes	
Density	1.67 g/ml	DIN 53479
Thermal stability	–20 °C up to +80 °C	
Max. permissible total deformation	15%	DIN EN ISO 11600
Volume change	10–15 Vol. %	DIN EN ISO 10563
Building material class	B2 (normally inflammable)	DIN 4102, Part 1

[1] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU joint sealing compound – internal use	Soft-pack	600 ml	White	20 pcs	H-01477-60-0-7

GU joint sealing compound – internal use

Substrates

- Suitable for all porous building substrates such as concrete, brick, roof tiles, cellular concrete, plasterboard, plaster, masonry, fibre cement, coated timber, hard PVC and anodised aluminium. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease.
- Do not use on glass, metals at risk of corrosion, enamels and ceramics or for underwater jointing. Avoid contact with materials that emit bitumen, tar or plasticisers such as EPDM, chloroprene rubber (neoprene), butyl, insulating paints, and foams, should be avoided since this can lead to incompatibilities such as discolouration or loss of adhesion.
- GU joint sealing compound – internal use is not suitable for joints with marble or other types of natural stone since such use can lead to adhesion problems and / or discolouration
- It is advisable to carry out an initial adhesion and compatibility test on every substrate
- **Pretreatment:** pre-coat highly porous substrates with a mixture of ⅓ GU joint sealing compound – internal use and ⅔ water, then leave to evaporate for at least 60 minutes. Clean/ degrease non-absorbent substrates with acetone.

Processing

- **Application method**
  – GU soft-pack gun
- **Processing temperature**
  – Ambient temperature: +5 °C to +40 °C
  – Temperature of adhesive surface: +5 °C to +35 °C
- Do not apply when there is a risk of rain or frost
- **Cleaning**
  – With water prior to curing; subsequently can only be removed mechanically
- **Smoothing**
  – With water before the surface dries

Joint dimensions

- **Minimum width:** 5 mm
- **Maximum width:** 20 mm
- **Minimum depth:** 5 mm
- **Recommended:** joint width = joint depth

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place. Protect from frost. Can be stored for up to 2 days at temperatures down to –10 °C. Seal opened containers well and use quickly.

Safety instructions

- Observe standard workplace hygiene

GU joint sealing compound – internal use

Note

- Resistant to driving rain once a solid film has formed on the surface (approx. 60 minutes)
- Not suitable for long-term exposure to water
- Drying will be significantly slower at low temperatures and/or high air humidity
- According to the applicable standards (e.g. DIN 18540), elastic sealing compounds should not be completely coated as cracks may form in the inelastic coating in the event of stress or movement. For joints with a maximum movement of 5%, GU joint sealing compound – internal use can be coated once it is completely dry, but the coating used must be able to compensate for movements in the compound. Due to the variety of coating systems available on the market, we recommend carrying out compatibility and adhesion tests in advance.

GU sealing cord

with Kompri hollow-core

Product description / Applications

GU sealing cord, made of closed cell PE foam with a special surface, is used to backfill construction and expansion joints and is particularly suitable for joint, window and door seals and for soundproofing. Due to its expandable Kompri hollow-core, it is able to cover a wide range of very different joint widths.

Product characteristics

- With compressible hollow core for connecting joints, fits in even extremely narrow joints
- Prevents adhesion to all 3 joint-flanks
- Rot-proof
- Special closed cell surface prevents formation of gas and bubbles after rinsing
- Water-repellent (does not draw in moisture)
- Good compatibility with GU sealants for old buildings
- High elasticity
- Very flexible
- Easy to fit
- Pressure-resistant
- Convex limitation to joint depth
- No discolouration of the joint sealant
- Odourless, physiologically inert and chemically neutral

GU sealing cord

with Kompri hollow-core

Technical data and requirements

GU sealing cord	Classification and grading	NF / ISO / DIN standard
Cell structure	Closed-cell polyethylene foam	
Production	Completely free of CFCs and HCFCs (ODP=0)	
Water absorption	< 0.5 Vol. %	DIN 53495
Thermal stability	–40 °C up to +100 °C	
Building material class	B1 (hardly inflammable)	DIN 4102

Order information

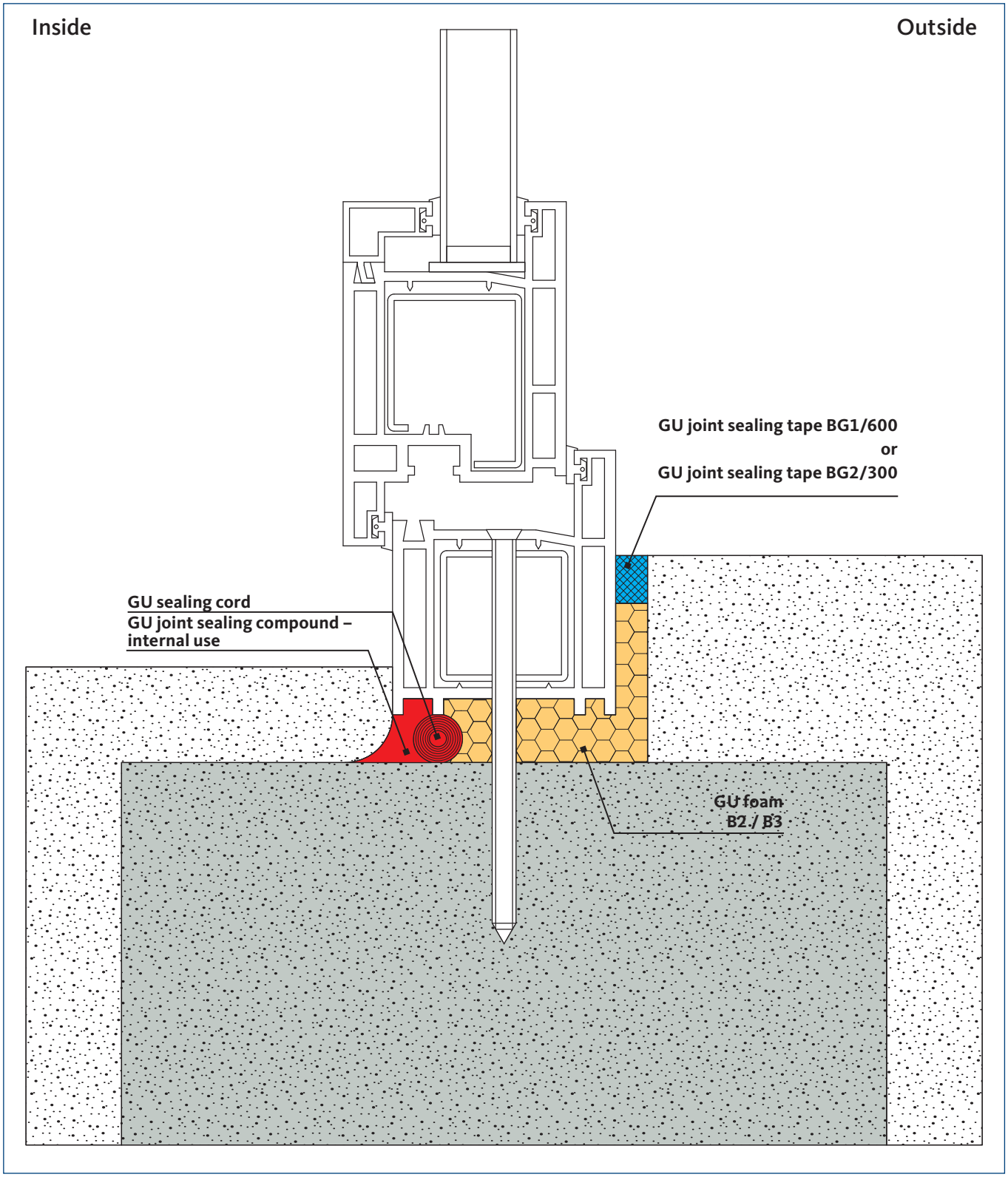
Designation	Packaging	Size	Colour	PU	Article number
GU sealing cord Full material without hollow core	Rollers	10 mm	Grey	1,150 m	H-00985-10-0-0
GU sealing cord with Kompri hollow-core, closed cell	Rollers	15 mm	Grey	550 m	H-00985-15-0-0
		20 mm	Grey	350 m	H-00985-20-0-0
		25 mm	Grey	200 m	H-00985-25-0-0
		30 mm	Grey	160 m	H-00985-30-0-0
		40 mm	Grey	135 m	H-00985-40-0-0
		50 mm	Grey	84 m	H-00985-50-0-0

Processing

- GU sealing cord is packaged in dispenser boxes and is easy to fit
- It is recommended that the cord is installed using blunt tools to avoid damaging the surface
- GU sealing cord should only be used for cold joints (normal construction joints)
- The required profile thickness is usually 20–25% above the joint width

GU joint sealing compound – internal use / GU sealing cord

Installation sketch



GU joint sealing compound – internal use / GU sealing cord

Building component testing

Bauteilprüfung

Luftdichtheit und Schlagregendichtheit eines Abdichtungssystems zwischen Fenster und Baukörper im Neuzustand sowie nach simulierten Kurzzeitbelastungen

Prüfbericht
Nr. 13-002481-PR01
(PB-E03-09-de-01)

ift ROSENHEIM

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
Deutschland

Abdichtungssystem zwischen Fenster und Baukörper
Dämmung: ① GU Pistolenschaum bzw. Profi-Pistolenschaum
Abdichtung: ② GU Fugendichtstoff Innen + GU Rundschnur, im Brüstungsbereich: GU Fensterdichtband Innen + GU Ultra Dichtmasse
③ GU Fugendichtstoff Außen + GU Rundschnur, im Brüstungsbereich: GU Fensterdichtband Außen + GU Ultra Dichtmasse

Verputztes Mauerwerk aus Hochlochziegel mit stumpfer Leibungsausbildung. Kunststofffenster mit Stahlarmierung im Flügel- und Blendrahmen.
Befestigung zum Baukörper umlaufend mit Rahmendübel. Befestigungsabstände ≤ 700 mm.
Abdichtung raum- und außenseitig zwischen Blendrahmen und glattgestrichener Mauerleibung. Verarbeitung nach den Vorgaben des Auftraggebers.
Außen Aluminium-Fensterbank mit aufgesteckten Endstücken.

Raumseitig luftdichter und außenseitig schlagregendichter Fugenanschluss zwischen Außenwand und Fenster bzw. Fenstertüren aus weißen PVC-Hohlkammerprofilen mit gleichwertiger Ausführung, wie oben beschrieben.

-/-

Ergebnisse *)

Luftdurchlässigkeit bis zu ± 1000 Pa, im Neuzustand	a < 0,1 m³/(m h daPa^{2/3})
Luftdurchlässigkeit bis zu ± 1000 Pa, nach simulierten Kurzzeitbelastungen (Temperatur, Wind, Nutzung)	a < 0,1 m³/(m h daPa^{2/3})
Schlagregendichtheit bis 600 Pa, nach simulierten Kurzzeitbelastungen (Temperatur, Wind, Nutzung)	kein Wassereintritt

*) Einzelergebnisse siehe Prüfbericht Abschnitt 3

ift Rosenheim
13.08.2013

Karin Lieb, Dipl.-Ing. (FH)
Prüfstellenleiter
Baustoffe & Halbzeuge

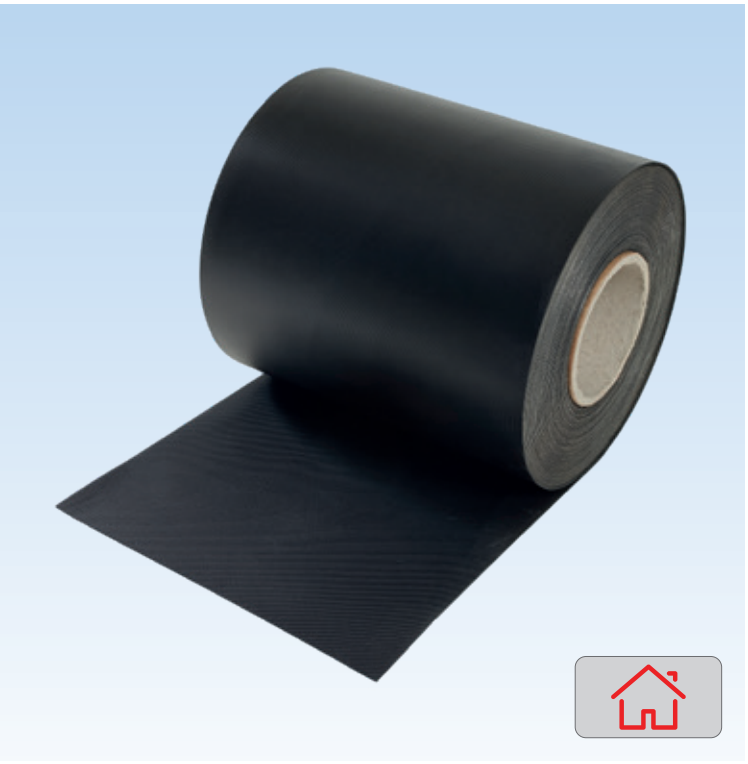
Wolfgang Jehl, Dipl.-Ing. (FH)
Produktingenieur
Baustoffe & Halbzeuge

Grundlagen
ift-Richtlinie MO-01/1 : 2007-01
Baukörperanschluss von Fenstern.
Teil 1: Verfahren zur Ermittlung der Gebrauchstauglichkeit von Abdichtungssystemen. Abschnitt 5. Prüfung Fugeneigenschaften

Prüfbericht 105 32369/1 vom 09.01.2007

Darstellung

GU butyl sheet for structural sealing – internal use



Product description

GU butyl sheet for structural sealing is available in 0.75 mm and 1.0 mm thicknesses and enables you, in accordance with DIN 4108, to make windows and façade connections durably air-tight and watertight or even impervious to water vapour, with the required permanent elasticity. When the German Energy Saving Ordinance (Energieeinsparverordnung, EnEV) came into force, it set even more stringent requirements in terms of sealing connecting joints in the building envelope.

These required values can also be tested at any time (blower door test).

Applications

The GU butyl sheet for structural sealing is primarily used for bridging and sealing expansion joints of all kinds in window installation and façade construction.

Product characteristics

- Material approved by EN 13859-2 and EN 14909
- Zero environmental impact
- Permanently flexible over a temperature range of –40 °C to +100 °C
- Resistant to aging, ozone and UV
- Compatible with bitumen
- Resistant to a wide range of chemical and mechanical effects
- Neutral behaviour with the majority of standard building materials
- No problems from plasticisers
- GU butyl sealing sheet (internal) and GU EPDM sealing sheet (external) are so well matched to one another in terms of resistance to water vapour diffusion that even testing climate conditions are reliably managed
- No additional mechanical fixing of the membranes is required (note the usage guidelines for the adhesive)
- Prefabricating corners and shaped parts or entire sections at the factory reduces processing times to a minimum and enables efficient, well priced and above all reliable sealing of all crucial locations

Processing

- Do not glue or fasten the material under tension; always ensure tension-free installation
- When gluing, ensure that the material (and substrate) is clean, dry and free of oils, greases and release agents (e.g. silicone spray)
- When carrying out the work observe the processing guidelines for gluing foils

GU butyl sheet for structural sealing – internal use

Technical data and requirements

GU butyl sheet for structural sealing – internal use	Classification and grading	NF / ISO / DIN standard
Thickness	0.75/1.0 mm ± 0.15	DIN EN 1849-2
Length	≥ 20 m	
Width	150–1300 mm ± 0.2%	
Straightness	Passed	
Grammage	950, 1250 g/m² ± 25%	
Fire behaviour	Class E	DIN EN 13501-1
Resistance against water penetration	W1	EN 1928, procedure B
Water vapour transmission properties μ	156,000 ± 20,000	DIN 1931
Resistance to air infiltration (m² x h x 50 Pa)	≤ 0.1 m³	DIN EN 12114
Maximum tensile force	≥ 170, ≥ 250 N/50 mm	DIN EN 12311-1
Elongation at maximum tensile force	≥ 500%	DIN EN 12311-1
Tear resistance	≥ 100, ≥ 120 N	DIN EN 12310-1
Dimensional change after warm storage	≤ 0.5%	DIN EN 1107-2
Cold bending behaviour	≤ –30 °C	DIN EN 1109
Artificial aging as a combination of permanent exposure both to UV radiation and to increased temperature:		
Tensile strength	221 N/50 mm ± 36 302 N/50 mm ± 45	
Tensile extension	450% ± 15%	
Resistance against water penetration	W1	

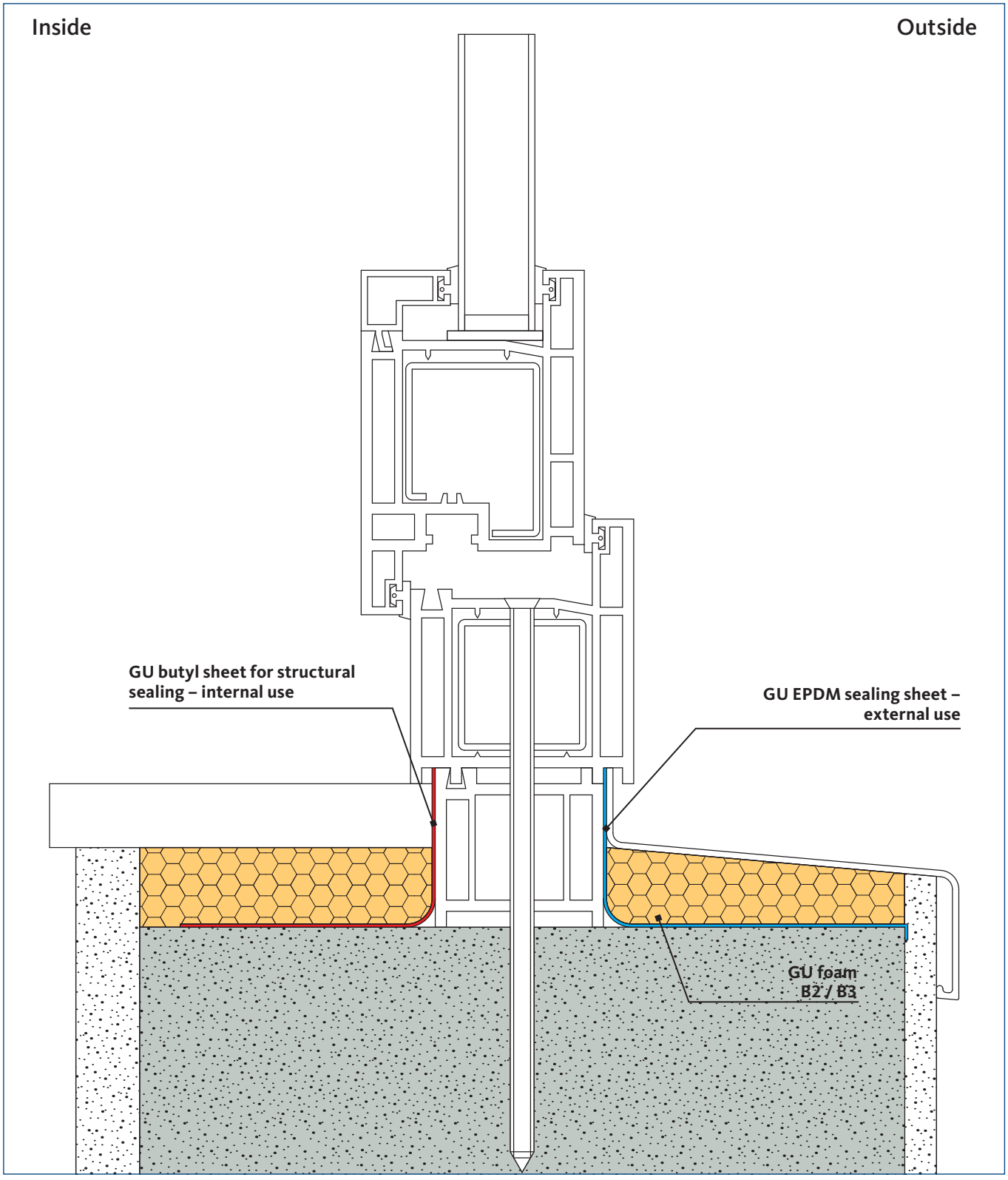
Order information

Designation	Thickness	Width	Colour	PU	Article number
GU butyl sheet for structural sealing – internal use with SK butyl strip on one side	0.75 mm	100 mm	Black	20 m	H-01856-10-0-0
	0.75 mm	150 mm	Black	20 m	H-01856-15-0-0
	0.75 mm	200 mm	Black	20 m	H-01856-20-0-0
	0.75 mm	250 mm	Black	20 m	H-01856-25-0-0
	0.75 mm	300 mm	Black	20 m	H-01856-30-0-0
	0.75 mm	350 mm	Black	20 m	H-01856-35-0-0
	0.75 mm	400 mm	Black	20 m	H-01856-40-0-0
	1.0 mm	100 mm	Black	20 m	H-01857-10-0-0
	1.0 mm	150 mm	Black	20 m	H-01857-15-0-0
	1.0 mm	200 mm	Black	20 m	H-01857-20-0-0
	1.0 mm	250 mm	Black	20 m	H-01857-25-0-0
	1.0 mm	300 mm	Black	20 m	H-01857-30-0-0
	1.0 mm	350 mm	Black	20 m	H-01857-35-0-0
GU butyl sheet for structural sealing – internal use without SK butyl strip	0.75 mm	150 mm	Black	20 m	H-01472-15-0-0
	0.75 mm	200 mm	Black	20 m	H-01472-20-0-0
	0.75 mm	250 mm	Black	20 m	H-01472-25-0-0
	0.75 mm	300 mm	Black	20 m	H-01472-30-0-0
	0.75 mm	400 mm	Black	20 m	H-01472-40-0-0
	0.75 mm	500 mm	Black	20 m	H-01472-50-0-0
	0.75 mm	1300 mm	Black	20 m	H-01472-13-0-0
	1.0 mm	150 mm	Black	20 m	H-01474-15-0-0
	1.0 mm	200 mm	Black	20 m	H-01474-20-0-0
	1.0 mm	250 mm	Black	20 m	H-01474-25-0-0
	1.0 mm	300 mm	Black	20 m	H-01474-30-0-0
	1.0 mm	400 mm	Black	20 m	H-01474-40-0-0
	1.0 mm	500 mm	Black	20 m	H-01474-50-0-0
	1.0 mm	1300 mm	Black	20 m	H-01474-13-0-0

Other dimensions and thicknesses available on request.

GU butyl sheet for structural sealing – internal use

Installation sketch



GU butyl sheet for structural sealing – internal use

Guidelines for gluing films with self-adhesive edges made of butyl

- The self-adhesive edge is only suitable for smooth substrates. The surface of the substrate to be glued must be dry and free of dust and grease. Any release agents present should be removed. Depending on the finish of the materials and surfaces, the glued surfaces should be ground; it may also be advisable to prime the glued surfaces with GU primer.
- Absorbent porous substrates (concrete/timber) must always be primed
- Gluing with a butyl self-adhesive edge is a contact adhesion method, the adjustment options are therefore very limited and should be avoided whenever possible
- Glue the EPDM films without tension, always applying pressure to the full surface of the adhesive edge using the GU pressure roller
- The optimum adhesive bond is achieved after 2–3 days, and an assessment should therefore only be performed once this period has elapsed

Storage:

- At midsummer temperatures, store the rolls in a cool place and if gluing is to be carried out at low temperatures, store rolls in a temperate environment, at a temperature of at least + 15°C

During the installation period:

The adhesive bonds are often subjected to critical loads during this period. This particularly applies if, in addition to being glued on one side, the films are exposed to additional wind loads and/or temperature increases, e.g. due to solar irradiation. The adhesive bonds must only be exposed to very light shearing loads, exposure to loads due to formwork is not permitted.

As the film is glued on one side in the first instance, this one edge bond must initially be able to carry the entire weight of the film. As this represents an extremely unfavourable loading situation, the second film edge must then also be directly glued or fastened.

Gluing the film in the final condition:

- The weight of the film must be permanently supported by the two edge bonds. If these adhesive bonds are exposed to higher temperatures (over 35°C), it must be clarified beforehand whether an additional fixing is to be used.
- The butyl edge bond and the film material are highly resistant to ageing and weather

GU super sealant

for dry substrates

Product description

GU super sealant is a high-quality, plastoelastic, one-component compound for gluing/sealing GU window sealing tape to the building structure.

Product characteristics

- Very good workability
- Solvent- and silicone-free
- Low water vapour transmission properties
- Maximum total deformation 10%
- Colourfast
- Weatherproof and UV-resistant
- Waterproof after curing
- Very good coating compatibility in accordance with DIN 52452 once completely cured
- Can be readily plastered or papered over

Applications

- Durable, airtight internal seal for connecting joints between masonry and door or window frames
- Joints and cracks that are subject to small loads, in masonry, concrete, plaster and windowsills, shutter boxes, baseboards and floors
- Connecting joints (horizontal) for porous concrete buildings
- To seal panel joints, seams and overlaps in machine and metal structures and in air conditioning and ventilation systems

GU super sealant

for dry substrates

Technical data and requirements

GU super sealant	Classification and grading	NF / ISO / DIN standard
Consistency	Stable paste	
Curing method	Physical drying by evaporation of water at room temperature	
Film formation time [1]	Surface dry after approx. 30 minutes	
Density	1.70 g/ml	DIN 53479
Thermal stability	–20 °C up to +80 °C	
Max. permissible total deformation	10%	DIN EN ISO 11600
Volume change	–15 Vol. %	DIN EN ISO 10563
Building material class	B2 (normally inflammable)	DIN 4102, Part 1

[1] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU super sealant	Soft-pack	600 ml	White	20 pcs	H-00961-01-0-0

GU super sealant

for dry substrates

Substrates

- Suitable for all porous building substrates such as concrete, brick, roof tiles, cellular concrete, plasterboard, plaster, masonry and fibre cement. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease.
- Do not use on glass, metals at risk of corrosion, enamels and ceramics or for underwater jointing. Avoid contact with materials that emit bitumen, tar or plasticisers such as EPDM, chloroprene rubber (neoprene), butyl, insulating paints, and foams, should be avoided since this can lead to incompatibilities such as discolouration or loss of adhesion.
- GU super sealant is not suitable for joints with marble or other types of natural stone since such use can lead to adhesion problems and / or discolouration.
- It is advisable to carry out an initial adhesion and compatibility test on every substrate
- Many need priming on a case-by-case basis

Processing

- **Application method**
  – GU soft-pack gun
- **Processing temperature**
  – Ambient temperature: +5 °C to +40 °C
  – Temperature of adhesive surface: +5 °C to +35 °C
- Do not apply when there is a risk of rain or frost

Joint dimensions

- **Minimum width:** 5 mm
- **Maximum width:** 20 mm
- **Minimum depth:** 5 mm

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place. Protect from frost. Seal opened containers well and use quickly.

Safety instructions

- Observe standard workplace hygiene

GU super sealant

for dry substrates

Note

- Resistant to driving rain once a solid film has formed on the surface (approx. 60 minutes)
- Not suitable for long-term exposure to water
- Drying will be significantly slower at low temperatures and/or high air humidity
- According to the applicable standards (e.g. DIN 18540), elastic sealing compounds should not be completely coated as cracks may form in the inelastic coating in the event of stress or movement. For joints with a maximum movement of 5%, GU super sealant can be coated once it is completely dry, but the coating used must be able to compensate for movements in the compound. Due to the variety of coating systems available on the market, we recommend carrying out compatibility and adhesion tests in advance.

GU ultra sealant

when used as construction foil adhesive

Product description

GU ultra sealant is a high-quality, neutral, one-component, permanently elastic adhesive/sealant based on hybrid polymer with a wide range of application.

Product characteristics

- Very good workability
- Permanently elastic after curing
- Virtually odourless
- Non-corrosive
- Waterproof and resistant to salt water
- Compensates for any unevenness and material stress
- No speckling with porous substrates, e.g. natural stone, ashlar, marble, granite, etc.
- Blister-free curing even at high temperatures
- Very good adhesion to almost any substrate without primer
- Also sticks to moist substrates
- Silicone-, solvent-, halogen-, acid- and isocyanate-free
- Very good coating compatibility in accordance with DIN 52452-A1 (please see remark), wet-on-wet paintable
- Colourfast, weatherproof and UV-resistant

Applications

- Stress-free structural adhesion of e.g. metal, plastic (apart from PE, PP, PTFE and silicone) and hardwoods
- Sealing and adhesion applications in the construction industry
- Structural adhesion of vibrating constructions
- Sealing and adhesion of metal constructions
- Stress-free adhesion/sealing in the area of wagon construction, container construction, shipbuilding, body construction, vehicle construction, caravan construction and apparatus construction
- Sealings for air conditioning and ventilation systems
- Sanitary sealings
- Sealing of weld seams
- Sealing of floor joints

GU ultra sealant

when used as construction foil adhesive

Technical data and requirements

GU joint sealing compound – external use	Classification and grading	NF / ISO / DIN standard
Base	1 component hybrid polymer	
Consistency	Stable paste	
Curing	Polymerisation through air humidity at room temperature	
Film formation time [1]	Approx. 10 minutes	
Curing speed [1]	2–3 mm in the first 24 hours	
Shore A – hardness	40 ± 5	DIN 53505
Density	1.67 g/ml	DIN 53479
Thermal stability	–40 °C up to +90 °C	
Recovery	>75%	DIN EN ISO 7389-B
Max. permissible total deformation	20%	DIN EN ISO 11600
Elastic modulus 100%	0.75 N/mm²	DIN EN ISO 8339
Tensile strength	1.8 N/mm²	DIN 53504
Combined tension and shear resistance [2]	0.9 N/mm²	DIN 53504
Percent elongation at failure	750%	DIN 53504
Volume change	–3 up to –4 Vol. %	DIN EN ISO 10563
Building material class	B2 (normally inflammable)	DIN 4102, Part 4

The information is based on fully cured product.
[1] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.
[2] Substrate: AlMgSi1, layer thickness 2 mm, feed rate 10 mm/minute

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU ultra sealant	Soft-pack	600 ml	White	20 pcs	H-01198-00-0-0

GU ultra sealant

when used as construction foil adhesive

Substrates

- GU ultra sealant has outstanding and normally primer-free adhesion on a large number of substrates, e.g. metal (steel, AlMgSi1, brass, zinc, steel ST 1403, electroplated and fireplated steel, AlCuMg1), plastics (polystyrol, polycarbonate, PVC, ABS, polyamide, PMMA and GFK – not to PE, PP, PTFE and silicone), polystyrene, cork, enamel, concrete, glass, HPL and wood.
- Warning: PMMA and polycarbonate must not be glued under tension, or otherwise stress cracks will form. Preliminary testing is strictly recommended for polycarbonate.
- In general, care should be taken with plastics to ensure that release agents used in manufacture or protective films used for transport are removed before gluing, leaving no residue, as these can sometimes have a significant negative effect on adhesion.
- With plasticised synthetic materials (e.g. soft PVC, butyl rubber, EPDM and APTK) may exhibit incompatibilities such as discolouration and loss of adhesion. Suitability for use with the system should be tested in such cases. Adhesion surfaces must be suitable for coating, clean, and free of dust and grease. Dry and clean substrates are particularly suitable. These provide the best adhesion values.
- GU ultra sealant also sticks to moist substrates, and even underwater. Adhesion achieved in this way may, however, be weaker than adhesion to dry and clean substrates.
- Pretreatment: porous substrates that are subject to relatively high water loads should be pretreated with GU primer if appropriate

Processing

- **It is advisable to carry out an initial adhesion and compatibility test on every substrate**
- **Application method**
  – GU cartridges and soft-pack guns
- **Processing temperature**
  – +0°C (frost-free) up to +40°C (ambient temperature)
  – **+0°C (frost-free) up to +35°C (temperature of adhesive surface)**
- Curing occurs from outside to inside as a result of air humidity at room temperature and slows over time. At low temperatures and/or low air humidity curing will be significantly slower!

Joint dimensions

- **Minimum width**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Maximum width**
  – for gluing: 10 mm
  – for sealing: 30 mm
- **Minimum depth**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Recommended**
  – joint width = 2 x joint depth (> 6 mm width)
  – joint width = 1 x joint depth (< 6 mm width)

Cleaning

- Can be removed mechanically using GU PVC cleaner or GU aluminium cleaner following curing

Smoothing

- With GU SMOOTHING AGENT or soap solution prior to film formation

Safety instructions

- Observe standard workplace hygiene

GU ultra sealant

when used as construction foil adhesive

Note

GU ultra sealant is paintable.

According to the applicable standards (e.g. DIN 18540), elastic sealing compounds should not be completely coated as cracks may form in the inelastic coating in the event of stress or movement. The drying time of alkyd resin paints may be affected.

Due to the variety of coating systems available on the market, we recommend carrying out compatibility and adhesion tests in advance. Any soap residue from the smoothing water should be removed prior to coating, as this can impair the adhesion of the coating.

GU EPDM construction adhesive

Solvent-free

Product description

GU EPDM construction adhesive is a high-quality, neutral, one-component, soft elastic sealant with a hybrid polymer base for expansion joints in high-rise buildings.

Product characteristics

- Very good workability above 0 °C
- Permanently elastic after curing
- Virtually odourless
- Colourfast, weatherproof and UV-resistant
- Solvent-, isocyanate- and silicone-free
- Adhesion without primer, even to moist substrates
- Very good coating compatibility in accordance with DIN 52452
- Non-corrosive
- Blister-free curing
- Corresponds to DIN 18540-F (F = early resistance)

Applications

- All standard construction joints
- Joints in high-rise construction in accordance with DIN 18540
- Connecting joints between window/door frames and masonry
- Tensionless gluing of window sealing tape
- Tension-compensating expansion joints between construction materials with greatly differing expansion behaviour
- Joints subject to substantial movement
- Product for repairing

GU EPDM construction adhesive

Solvent-free

Technical data and requirements

GU EPDM construction adhesive, solvent-free	Classification and grading	NF / ISO / DIN standard
Base	1 component hybrid polymer	
Consistency	Stable paste	
Curing method	Polymerisation through air humidity at room temperature	
Film formation time [1]	Approx. 10 minutes	
Curing speed [1]	2 mm in the first 24 hours	
Shore A – hardness	25 ± 5	DIN 53505
Density	1.45 g/ml	DIN 53479
Thermal stability	–40 °C up to +90 °C	
Recovery	> 70%	
Max. permissible total deformation	25%	DIN EN ISO 11600
Elastic modulus 100%	0.4 N/mm²	DIN EN ISO 8339
Tensile strength	1.3 N/mm²	
Combined tension and shear resistance [2]	0.5 N/mm²	DIN 53504
Percent elongation at failure	> 900%	DIN 53504
Volume change	–2 up to –3 Vol. %	DIN EN ISO 10563
Building material class	B2 (normally inflammable)	DIN 4102, Part 4

[1] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.
[2] Substrate AlMgSi1, layer thickness 2 mm, feed rate 10 mm/minute.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU EPDM construction adhesive, solvent-free	Soft-pack	600 ml	Black	20 pcs	H-01471-00-0-0

*adhesives containing solvents and primers available on request

GU EPDM construction adhesive

Solvent-free

Substrates

- All standard building substrates such as concrete, cellular concrete, hard PVC, timber, metals, GRP (excluding PP, PE, PTFE and silicones). Especially with porous natural stone, e.g. Speckling and/or adhesion problems can occur in particular with porous natural stone such as sandstone, Carrara marble and Jura limestone. With plasticised structural waterproofing membranes (e.g. soft PVC, butyl rubber, EPDM) may exhibit incompatibilities such as discolouration and loss of adhesion. Suitability for use with the system should be tested in such cases. In general, care should be taken with plastics to ensure that release agents used in manufacture or protective films used for transport are removed before gluing, leaving no residue, as these can sometimes have a significant negative effect on adhesion.
  Warning: PMMA and polycarbonate must not be glued under tension, or otherwise stress cracks will form. Preliminary testing is strictly recommended for polycarbonate.
- Adhesion surfaces must be suitable for coating, clean, and free of dust and grease. Dry substrates are particularly suitable. These provide the best adhesion values. GU EPDM construction adhesive also sticks to moist substrates, and even underwater. Adhesion achieved in this way may, however, be weaker than adhesion to dry and clean substrates.
- **Pretreatment:** porous substrates that are subject to relatively high water loads should be pretreated with GU primer if appropriate. It is advisable to carry out an initial adhesion and compatibility test on every substrate.

Processing

- **Application method**
  – GU soft-pack gun
- **Processing temperature**
  – Ambient temperature: +0 °C (frost-free) to +40 °C
  – Temperature of adhesive surface: +0 °C (frost-free) to +35 °C
- **Curing**
  – Curing occurs from outside to inside as a result of air humidity at room temperature and slows over time. At low temperatures and/or low air humidity curing will be significantly slower.
- **Cleaning**
  – With GU gun cleaner or white spirit prior to curing; subsequently can be removed mechanically
- **Smoothing**
  – With GU smoothing agent prior to film formation

Joint dimensions

- **Minimum width**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Maximum width**
  – for gluing: 10 mm
  – for sealing: 30 mm
- **Minimum depth**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Recommended**
  – joint width = 2 x joint depth (> 6 mm width)
  – joint width = 1 x joint depth (< 6 mm width)

GU EPDM construction adhesive

Solvent-free

Note

GU EPDM construction adhesive can be coated. According to the applicable standards (e.g. DIN 18540), elastic sealing compounds should not be completely coated as cracks may form in the inelastic coating in the event of stress or movement. The drying time of alkyd resin paints may be affected. Due to the variety of coating systems available on the market, we recommend carrying out compatibility and adhesion tests in advance. Any soap residue from the smoothing water should be removed prior to coating, as this can impair the adhesion of the coating.

GU primer

Product description

GU primer is a solvent-free, high-quality primer with a bitumen-rubber base. It is used as a foundation to improve adhesion for seals using cold self-adhesive sealing sheets, such as GU KSK sheet for structural sealing with perforated strip.

It can be used on dry, slightly moist and mineral-based substrates such as sandy limestone, brick, concrete blocks, concrete, cellular concrete, plaster and screed.

Product characteristics

- Ready to use, easily workable, can be spread or sprayed
- Fast drying
- Solvent-free so does not harm the environment
- No contamination of groundwater
- No vapours harmful to health

Applications

In conjunction with GU KSK sheet for structural sealing with perforated strip, as a foundation/primer for sealing:

- Basement outer walls and foundations
- Substrates such as vertical coring bricks, solid bricks, hollow blocks, solid stone, solid blocks, slag bricks, sandy limestone, concrete blocks, cellular concrete blocks, concrete formwork blocks, mixed brickwork

GU primer

Technical data and requirements

Test	Condition	Result
Viscosity	Brookfield, Sp.F, 5 Upm	Approx. 70,000–90,000 mPa.s
Density		Approx. 1.0 kg/l
Solids content		42–45%
Drying [1]		Approx. 45 minutes
Solvent		Water
Coverage		Approx. 100–150 ml/m²
Ambient temperature for processing		+5 °C up to +30 °C

[1] The time may vary depending on air humidity, temperature, coating thickness and substrate.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Containers/ Pallet	Article number
GU primer	Plastic container	1 litre	–	6 pcs	384 pcs	H-00963-00-0-0
		10 litres	–	1 pc	44 pcs	H-00963-10-0-0

GU primer

Processing

- Substrates must be stable, level, suitable for coating, frost-free, and free of oil, grease, bitumen, nests, gaping cracks, ridges, impurities such as dust, dirt, remains of mortar and sinter layers
- Grooves must be rounded and edges chamfered
- Work can be carried out on dry or slightly moist substrates. The time it takes to dry thoroughly will be extended in the case of moist substrates. Surfaces with standing water or that are dripping wet should be avoided.
- Coarse-pored stone must be smoothed with a cement mortar beforehand. For concrete surfaces, spacers should be chiseled out to approx. 2 cm and honeycomb areas filled with cement mortar. For re-entrant corners, channels of 8 cm (side length) should be filled with cement mortar.
- GU primer is applied with a broad brush or appropriate spreader
- Depending on the finish of the substrate and the weather conditions, the time required for a full cure may vary
- GU primer is not a hazardous substance and is not subject to labelling requirements under the German Hazardous Substances Ordinance and Hazardous Goods Ordinance – Road (GGVS)
- As well as the information provided, the appropriate guidelines and regulations should also be observed
- Do not apply in the rain or at an ambient temperature of below +5 °C
- Clean tools and spillages immediately with water. Clean off cured GU primer residue with white spirit.

Storage

- Store in a cool, dry, frost-free location in the original, sealed container

Safety instructions

- Avoid contact with skin and eyes
- Use suitable protective gloves

Disposal

- Containers, emptied of all residues, can be registered for collection with appropriate services e.g. DSD or Interseroh
- EAK code no. 08 04 10 (adhesive and sealant waste) or 17 03 02 (bituminous compounds) for cured material residue
- Uncured material residue should be thickened with cement and disposed of as above after curing

GU cartridges and soft-pack guns

Cartridge gun

Cartridge gun for processing cartridges (300/310 ml)

Characteristics

- Tempered socket, 2-piece
- Tempered push-rod
- Thrust ratio: 18:1 –4.5 mm/advanced shoot
- Weight: 850 g
- Rotating cradle

Soft-pack gun/cartridge gun standard

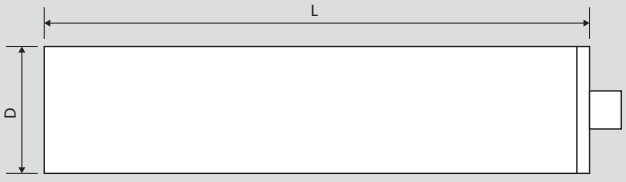
Universal gun for processing cartridges (310 ml) and soft-packs (300/400/600 ml)

Characteristics

- Tempered socket, 1-piece
- Tempered push-rod
- Thrust ratio: 18:1 –4.5 mm/advanced shoot
- Weight: 1170 g
- PVC soft-touch surface for pleasant handling
- Retaining tube:
  – Rotatable
  – See-through, to monitor remaining contents

Application range

- Standard cartridge (300 ml):
  50–51 mm [D] – 215 mm [L]
- Standard cartridge (310 ml):
  50–51 mm [D] – 218 mm [L]
- Standard soft-pack (300/400/600 ml):
  50–51 mm [D] – 335 mm [L]



GU cartridges and soft-pack guns

Order information

Designation	PU	Article number
Cartridge gun	1 pc	H-01469-00-0-0
Soft-pack gun/cartridge gun standard	1 pc	H-01468-00-0-0
Gun for soft-packs CORDLESS	1 pc	H-01470-00-0-0

You can find accessories for this product on page 160

Gun for soft-packs CORDLESS

Professional cordless gun for processing soft-packs (600 ml)

Characteristics

- High-quality li-ion battery, 7.4 V/1.3 A
- Low weight, just 1.4 kg
- Dripless system; to avoid product drip at the end of dispensing
- Built-in LED light for working in low light areas
- Speed trigger for better dispensing control
- Security lever prevents unintentional gun activation

Packing unit

- Cordless gun
- Li-ion battery 7.4 V/1.3 A
- Battery Charger
- Operating instructions
- Plastic case
- Replacement battery

General information

Sealing compounds and smoothing agents

PVC adhesive and PVC cleaner

Aluminium cleaner and aluminium adhesive

Maintenance sets

Sealing compounds – function and differences

What is a sealing compound?

Standard EN 26927 defines as a sealing compound any material that "is applied as a injectable compound to a joint and seals it permanently by adhering to suitable surfaces in the joint".

How sealing compounds work

All sealing compounds work according to two basic principles: on one hand, the bond firmly to the material surfaces (adhesion) and on the other hand after processing they form an interlocking compound which is inherently stable (cohesion).

Adhesion

Adhesion refers to the adhesive strength between the sealing compound and the building components that are to be bonded together. In the proper sense, adhesion describes the force of attraction between the surface of the compound and an adjoining surface of the material – the joint edge.

These joint edges must be prepared so that the adhesive forces can develop properly when the sealing compound is applied. In particular, loose particles such as rust or dust should be removed by mechanical means, and release agents such as oils and greases should be removed with solvents. This substrate preparation is a key factor in the success of a seal: if a joint exhibits leaks after processing, this is usually due to poor preparation, and not to the adhesive failure of the compound itself.

Cohesion

The forces that are responsible for the internal stability of a uniform (homogeneous) sealant layer are referred to as cohesion. In contrast to adhesion, in this case it is substances of the same type that are sticking together at the boundary between the sealing compound and the material.

Classes of sealing compound

Available sealing compounds can be categorised according to various criteria, for example:

- According to their use: construction sealing compounds, industrial sealing compounds and others
- According to their reactivity: chemically reactive, physically reactive and non-reactive sealing compounds
- According to their mechanical behaviour: plastic or elastic sealing compounds and transitional forms thereof
- According to factors of their performance: permanent flexibility, elastic recovery, chemical resistance, weather-resistance and others
- According to the number of components: one-component, two-component or (rarely) three-component
- According to its chemical base: silicone, polyurethane, modified silane polymer, polysulphide, acrylate, rubber and others
- According to their content of (or freedom from) certain solvents

Sealing compounds – function and differences

Reactivity of sealing compounds

Sealing compounds can be divided into three main categories based on their reactivity:

- Chemically reactive
- Physically reactive
- Non-reactive

Chemically reactive sealing compounds

Chemically reactive sealing compounds comprise one-component products, which cure on contact with air humidity, and two-component products. These are usually processed from cartridges or soft-packs. Before applying by injecting or pouring into the joint, they are admixed with a curing agent.

Both one- and two-component sealing compounds are significantly different in their as-delivered condition to their form after installation in the joint. This is because the chemical reactions which take place after application as a result of contact with air humidity, lead to cross-linking of the molecules in the sealing compound and hence to solidification of the compound.

The speed at which these chemical reactions take place depends, among other things, on the concentration of air humidity (the amount of water vapour in the air) and the ambient temperature. As a basic rule, the reaction is more rapid at higher temperatures and accelerates further as the air humidity increases. The formation of a film on the surface of the sealing compound marks the start of the curing reaction.

Physically reactive sealing compounds

In principle, physically reactive sealing compounds work through the release of a solvent after application in the joint. It is possible to use organic compounds as solvent, for example, but also water. In this process the compound is only changed physically; there are no chemical reactions within the sealing compound or at the boundary between the compound and the material.

Non-reactive sealing compounds

Sealing compounds that are neither chemically nor physically reactive remain plastically deformable over a long time and are usually based on rubber or bitumen. As no reactions take place when they are used, they are identical when supplied to when they are applied.

Mechanical behaviour of sealants

Sealing compounds can be categorised as either

- plastic and
- elastic sealing compounds

in respect of their mechanical deformation behaviour.

Plastic sealing compounds

A sealing compound is described as plastic if it is irreversibly deformed under the influence of a force in order to relieve the induced stresses. This behaviour ensures that a joint remains tight even if the joint edges slowly move relative to one another, for example. The plastic sealing compound compensates for this behaviour (within certain limits). Plastic sealing compounds are used, for example, in settlement joints, where their particular behaviour is often a precondition for the impermeability of the construction.

Elastic sealing compounds

If the sealing compound applied to a joint transforms during curing to become a relative soft moulded body, it is an elastic compound. Whether or not the function is problem-free depends above all on whether an effective bond is formed at the joint edges. Depending on how elastic the compound is and how strong its elastic recovery is after a deformation, sealing compounds in this class can compensate for movements of joint edges in relation to one another (relative movements) over long periods of time.

However, the distinction between plastic and elastic sealing compounds is not completely clear-cut. This is because there are a variety of transitions between the two classes – ultimately, each sealing compound has both plastic and elastic elements and the corresponding characteristics. The categorisation depends which function prevails and to what extent.

As a result, materials are defined as plastoelastic if they are primarily elastic but have a noticeably plastic element.

In contrast, sealing compounds are classified as elastoplastic if they are predominantly plastic with a small elastic element.

How do different sealing compounds work?

Chemically reactive sealing compounds

GU silicone

GU ultra sealant

Silicone

Silicones are elastic, weatherproof and have long durability. They are manufactured synthetically and are usually processed as one-component sealing compounds. They absorb air humidity on curing and at the same time split off a crosslinking agent.

Silicones are divided into silicone acetate and neutral silicone.

Silicone acetates have a characteristic smell by which they can easily be identified. This smell occurs because this group of compounds split off acetic acid on curing. Silicone acetates are particularly well suited to sealing glass and glazed surfaces.

However, neutral silicones are recommended for surfaces that are sensitive to acid. These are more or less odourless during curing.

Modified silane polymers (MSP)

Sealant systems that are based on neutral-curing modified silane polymers (MSP) can be applied to most substrates without primer (undercoat). They absorb air humidity on curing and at the same time give off alcohol. During this process resilient seals are formed through exposure to ultraviolet light.

The primer, which is normally applied to many types of substrate to stop penetration of the sealing compound, is integrated into the formulation of this sealant system. As a result, applying the sealing compound follows two conventional work processes. The ecologically sound processing and universal applicability means this class of compound is becoming increasingly important. Commercially available sealing compounds based on MSP include, for example, MS polymers, hybrid polymers, PU-silica and SPUR polymers and others – depending on the respective material used as base.

How do different sealing compounds work?

Chemically non-reactive sealing compounds

GU acrylic

Dispersion sealing compounds

Acrylic dispersions are the basis for aqueous sealants, which are very easy to work with. They stick to many mineral-based and metallic substrates, to diverse polymers and coatings. These compounds are used in the construction industry, among other fields, where their plastoelastic behaviour (they allow both elastic and plastic deformation) means they are perfectly designed for sealing settlement joints: even after curing, these sealing compounds yield, within certain limits, when the joint moves slightly. It is characteristic of this class of sealing compounds that they shrink by up to a quarter on curing, due to the evaporation of water.

GU silicone

neutral-cure

Product description

GU silicone is a one-component silicone sealing compound (neutral system) which crosslinks on contact with air humidity to form a durable, elastic bond which is extremely resistant to the effects of weather and UV radiation.

Product characteristics

- Ready to use, easily workable, can be spread or sprayed
- No embrittling or chalking or hairline cracks
- Solvent-free so does not harm the environment
- Very good adhesion to many substrates, including timber, PVC, aluminium, metal, glass
- Very good workability
- Colourfast, weatherproof and UV-resistant
- Permanently elastic after curing
- Corrosion-free

Applications

- Building and structural joints
- Construction joints on timber, aluminium and PVC elements
- Glass/frame sealing in combination with timber, aluminium and PVC
- Expansion joints between different construction materials

GU silicone

neutral-cure

Technical data and requirements

GU silicone		Classification and grading	NF / ISO / DIN standard
Base		1-component polysiloxane (oxime)	
Consistency		Stable paste	
Curing method		Polymerisation through air humidity at room temperature	
Density	Colour – transparent	1.0 g/ml	DIN 53 479
	Colour – coloured	1.23 g/ml	DIN 53 479
Thermal stability		–60 °C up to +120 °C	
Maximum permissible total deformation		25%	DIN EN ISO 11 600
Recovery		80%	ISO 7389-B
Building material class		B2 (normally inflammable)	DIN 4102 Part 4
Elastic modulus 100%		0.4 N/mm²	DIN EN 28339
Tensile strength		1.6 N/mm²	DIN 53504
Percent elongation at failure		800%	DIN 53504
Shore A – hardness		25 +/–	DIN 53505
Film formation [1]		Approx. 5 minutes	
Curing speed [2]		Approx. 2 mm within the first 24 hours	

[1] Measured at 20 °C and 65% relative air humidity
[2] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU	Article number
GU silicone	Cartridge	310 ml	Transparent	12 pcs	9-38963-00-0-0
			Silver grey	12 pcs	9-38963-00-0-1
			Brown	12 pcs	9-38963-00-0-5
			Black	12 pcs	9-38963-00-0-6
			White	12 pcs	9-38963-00-0-7
			Anthracite	12 pcs	9-38963-00-0-8
			Sanitary-grey	12 pcs	9-38963-00-0-8Y
Designation	**Packaging**	**Contents**	**Colour**	**PU**	**Article number**
GU silicone	Soft-pack	600 ml	Transparent	20 pcs	H-00007-02-0-0
			White	20 pcs	H-00007-02-0-7
			Anthracite	20 pcs	H-00007-02-0-8

GU silicone

neutral-cure

Processing

All standard building substrates (excluding PE, PP and PTFE).

Adhesion surfaces must be suitable for coating, dry, clean, and free of dust and grease. Clean the adhesion services with GU cleaner.

Avoid contact with materials that emit bitumen, tar or plasticisers such as EPDM, APTK, chloroprene rubber (neoprene), butyl, insulating paints, and foams, should be avoided since this can lead to incompatibilities such as discolouration or loss of adhesion.

GU silicone is not suitable for joints with marble or other types of natural stone since such use can lead to discolouration.

It is advisable to carry out an initial adhesion and compatibility test on every substrate. The compatibility with border seal and glazing packers should be always tested.

Processing temperature

+5 °C up to +35°C (ambient temperature)

+5 °C up to +35 °C (temperature of adhesive surface)

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place. Seal opened containers well and use quickly.

Cleaning

- Cleaning with turpentine substitute prior to curing; subsequently can only be removed mechanically.

Safety instructions

- Only to be used in spaces with sufficient ventilation
- Avoid frequent contact with the skin. In case of contact, wash with plenty of water and soap.
- Keep out of the reach of children
- In the event of contact with the eyes, rinse with plenty of water and seek medical help immediately

Application method

- Manual gun or air pistol

Joint dimensions

- **Minimum width:** 5 mm
- **Maximum width:** 20 mm
- **Minimum depth:** 5 mm
- **Recommended**
  – joint width = 2 x joint depth
  (> joint width = joint depth (< 6 mm width))

GU acrylic

Product description

GU acrylic is a high quality, plasto-elastic, one-component sealant on acrylate dispersion basis.

Product characteristics

- Very easy to work with
- Solvent- and silicone-free
- Maximum total deformation 10%
- Colourfast, weatherproof and UV-resistant
- Waterproof after curing
- Very good adhesion to moist, absorbent substrates
- Very good coating compatibility once completely cured
- Can be readily plastered or papered over

Applications

Joints and cracks that are subject to small loads, in masonry, concrete, plaster and window sills, shutter boxes, baseboards and interior floors.

Not suitable for long-term exposure to water. Drying will be significantly slower at low temperatures and/or high air humidity! According to the applicable standards (e.g. DIN 18540), elastic sealing compounds should not be completely coated as cracks may form in the inelastic coating in the event of stress or movement. For joints with a maximum movement of 5%, GU acrylic can be coated once it is completely dry, but the coating used must be able to compensate for movements in the compound. Due to the variety of coating systems available on the market, we recommend carrying out compatibility and adhesion tests in advance.

GU acrylic

Technical data and requirements

GU acrylic	Classification and grading	NF / ISO / DIN standard
Base	1 component acrylic dispersion	
Consistency	Stable paste	
Curing method	Physical drying by evaporation of water at room temperature	
Density	1.70 g/ml	DIN 53 479
Thermal stability	–20 °C up to +80 °C	
Maximum permissible total deformation	10%	DIN EN ISO 11 600
Building material class	B2 (normally inflammable)	DIN 4102 Part 4
Film formation [1]	Surface dry after approx. 20 minutes	
Volume change	–15%	DIN EN ISO 10563

[1] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.

Order information

Designation	Packaging	Contents	Colour	PU	Article number
GU acrylic	**Cartridge**	**310 ml**	White	12 pcs	H-00009-01-0-7

Processing

- All porous building substrates such as concrete, brick, roof tiles, cellular concrete, plasterboard, plaster, masonry and fibre cement
- Adhesion surfaces must be suitable for coating, clean, and free of dust and grease. Do not use on glass, metals at risk of corrosion, enamels and ceramics or for underwater jointing.
- Avoid contact with materials that emit bitumen, tar or plasticisers such as EPDM, APTK, chloroprene rubber (neoprene), butyl, insulating paints, and foams, should be avoided since this can lead to incompatibilities such as discolouration or loss of adhesion
- GU acrylic is not suitable for joints with marble or other types of natural stone since such use can lead to adhesion problems and/or discolouration
- It is advisable to carry out an initial adhesion and compatibility test on every substrate

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place. Can be stored for up to 2 days at temperatures down to –10 °C. Seal opened containers well and use quickly.

Safety instructions

- Only to be used in spaces with sufficient ventilation
- Avoid frequent contact with the skin. In case of contact, wash with plenty of water and soap.
- In the event of contact with the eyes, rinse with plenty of water and seek medical help immediately
- Keep out of the reach of children

Application method

- Manual gun or air pistol

Joint dimensions

- **Minimum width:** 5 mm
- **Maximum width:** 20 mm
- **Minimum depth:** 5 mm
- **Recommended**
  – joint width = joint depth

GU 1K installation adhesive

Product description

GU-1K installation adhesive is a high quality, neutral, permanently elastic one-component adhesive and sealing compound based on a hybrid polymer. It can be used for a universal range of applications.

Product characteristics

- Very easy to work with
- Permanently elastic after curing
- Virtually odourless
- Non-corrosive
- Waterproof and resistant to salt water
- Compensates for any unevenness and material stress
- No speckling with porous substrates such as natural stone, ashlar, marble, granite, etc.
- Blister-free curing even at high temperatures
- Very good adhesion to many materials mostly without primer
- Also sticks to moist substrates
- Silicone-, solvent-, halogen-, acid- and isocyanate-free
- Very good coating compatibility in accordance with DIN 52452; wet-on-wet paintable
- Colourfast, weatherproof and UV-resistant

Applications

- For example, stress-free structural adhesion of metal, plastic (except of PE, PP, PTFE and silicone) and hardwood
- Sealing and adhesion applications in the construction industry
- Structural adhesion of vibrating constructions
- Sealing and adhesion of metal constructions
- Stress-free sealing and adhesion in the area of wagon construction, container construction, shipbuilding, body construction, vehicle construction, caravan construction and apparatus construction
- Sealings for air conditioning and ventilation systems
- Sanitary sealings
- Sealing of weld joints
- Sealing of floor joints
- Mounting of sound absorbing and heat-insulating mats
- Adhesion of tread thresholds (GU Thermostep)
- Gluing of GU frame for projecting installation

GU 1K installation adhesive

Technical data and requirements

GU 1K installation adhesive	Classification and grading	NF / ISO / DIN standard
Base	1 component hybrid polymer	
Consistency	Stable paste	
Curing method	Polymerisation through air humidity at room temperature	
Film formation time [1]	Approx. 10 minutes	
Curing speed [1]	2–3 mm in the first 24 hours	
Shore A – hardness	40 ± 5	DIN 53505
Density	1.67 g/ml	DIN 53479
Thermal stability	–40 °C up to +90 °C	
Recovery	> 75%	ISO 7389-B
Max. permissible total deformation	20%	DIN EN ISO 11600
Elastic modulus 100%	0.75 N/mm²	DIN EN ISO 8339
Tensile strength	1.8 N/mm²	DIN 53504
Combined tension and shear resistance [2]	0.9 N/mm²	DIN 53504
Percent elongation at failure	750%	DIN 53504
Volume change	–3 up to –4 Vol. %	DIN EN ISO 10563
Building material class	B2 (normally inflammable)	DIN 4102, Part 4

[1] Measured according to standard atmosphere (EN ISO 291) at 23 °C/50% rel. hum. These values can vary due to environmental factors such as temperature, humidity and the nature of the substrate.
[2] Substrate AlMgSi1, layer thickness 2 mm, feed rate 10 mm/minute.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU 1K installation adhesive	PE euro cartridge	290 ml	Grey	12 pcs	H-01175-00-0-0
Designation	**Packaging**	**Contents**	**Colour**	**PU**	**Article number**
GU 1K installation adhesive	Soft-pack	600 ml	Grey	20 pcs	H-01175-60-0-0

GU 1K installation adhesive

Substrates

- The GU-1K installation adhesive cures excellently on a variety of substrates and mostly without primer. These include metals (AlCuMg1, AlMgSi1, brass, zinc, steel ST, 1403 electrogalvanised and hot-dip-galvanised steel and other steels), expanded polystyrene, cork, enamel, concrete, glass, HPL, timber and PMMA as well as GFRP – (but not PE, PP, PTFE and silicone).
- In general, care should be taken with plastics to ensure that release agents used in manufacture or protective films used for transport are removed before gluing, leaving no residue. Otherwise, adhesion to the component deteriorates considerably. Plastics containing plasticisers (e.g. soft PVC, butyl rubber, EPDM and APTK) may exhibit incompatibilities such as discolouration and loss of adhesion. Suitability for use with the system should be tested in such cases.
- **Caution:** PMMA and polycarbonate must not be glued under tension, or otherwise stress cracks will form. Preliminary testing is strictly recommended for polycarbonate.
- Adhesion surfaces must always be suitable for coating, clean, and free of dust and grease. Dry and clean substrates are particularly suitable and produce the best bond values. GU 1K installation adhesive also sticks to moist substrates, and even underwater. Adhesion achieved in this way may, however, be weaker than adhesion to dry and clean substrates.
- **Pretreatment:** porous substrates that are subject to relatively high water loads should be pretreated with GU primer if appropriate. For all smooth surfaces we also recommend to improve the adhesion by using a GU primer.

Processing

- **Application method**
  – GU manual or compressed-air gun
- **Processing temperature**
  – Ambient temperature: +0 °C (frost-free) to +40 °C
  – Temperature of adhesive surface: +0 °C (frost-free) to +35 °C
- **Caution:** Curing of the GU-1K installation adhesive occurs from outside to inside as a result of air humidity at room temperature and slows over time. At low temperatures and/or low air humidity curing can be significantly slower!

Joint dimensions

- **Minimum width**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Maximum width**
  – for gluing: 10 mm
  – for sealing: 30 mm
- **Minimum depth**
  – for gluing: 2 mm
  – for sealing: 5 mm
- **Recommended**
  – joint width = 2 x joint depth (› 6 mm width)
  – joint width = 1 x joint depth (‹ 6 mm width)

Storage

- Store in the unopened packaging in a cool (+5 °C to +25°C), dry place. Seal opened containers well and use quickly.

Safety instructions

- Observe standard workplace hygiene

GU 1K installation adhesive

Chemical resistance

- Good: water, aliphetic solvents, dilute anorganic acids and alkalis, oils and greases
- Bad: aromatic solvents, concentrated acids and chlorinated hydrocarbons

Note

- The GU-1K installation adhesive is paintable. Due to the variety of coating systems available on the market, we recommend carrying out compatibility and adhesion tests in advance. For example, in accordance with the relevant standards such as DIN 18540, elastic sealing compounds should not be coated completely, because otherwise cracks can form in the non-elastic paint when tensions and movements occur. The drying time of alkyd resin paints may also be delayed. Any soap residue from the smoothing water should be removed prior to coating, as this can impair the adhesion of the coating. An adhesion and compatibility test for the adhesive itself is advisable for the different substrates.

GU smoothing agent

Product description

GU smoothing agent is a ready-to-use universal agent for smoothing GU sealing compounds.

Product characteristics

- Ready to use
- Fluid
- Improves the appearance of the joint
- Promotes fast curing of the compound
- Solvent-free, does not affect the compound/silicone
- Biodegradable
- Universal product (not suitable for marble or other natural stone)

Applications

- For smoothing sealing compounds and silicones

GU smoothing agent

Technical data and requirements

GU smoothing agent	Classification and grading	NF / ISO / DIN standard
Base	Mix of anionic and non-ionic surfactants	
Consistency	Fluid	
Composition	Alkylbenzene sulphonic acid sodium salt Sodium lauryl ether sulphate Ethoxylated fatty alcohol Fatty acid diethanolamine	

Order information

Designation	Packaging	Contents	Colour	PU	Article number
GU smoothing agent		5 litres	Transparent	1 pc	H-01188-05-0-0

Substrates

- GU smoothing agent is not suitable for marble or other natural stone
- It is advisable to carry out an initial compatibility test on every sealing compound

Processing

- GU smoothing agent is sprayed onto the sealing compound before film formation and smoothed with a finger or finishing trowel. Excessive compound is wiped off and removed immediately.
- **Processing temperature**
  – From +5 °C to +35 °C

Storage

- Store GU smoothing agent in a cool, dry frost-free location. Seal opened containers well and use quickly.

GU flat nozzle

for adhesives and sealing compounds

Product description

The GU flat nozzle is a nozzle and application aid for adhesives and sealants (fluid or paste) with 5 application apertures, allowing for an application width of 20–75 mm by cutting as required. Adhesives and sealants can be applied cleanly and precisely both to narrow battens and to wide areas using the GU flat nozzle. The guide support, attached to the side, ensures a uniform and parallel application technique on rounded or angular external edges of the adhesion surfaces. This can easily be removed for inner edges (simply cut off). Lateral guards make sure that the bead of adhesive can consistently be applied to the workpieces with an even thickness.

Product characteristics

- Adjustment of the application apertures by cutting as required
- Uniform application of the adhesive/sealing compound to a width of 20–75 mm
- Clean and precisely defined application of the adhesive/ sealing compound
- Can also be used for inner edges
- Uniform, parallel application technique on rounded or angular external edges

GU flat nozzle

for adhesives and sealing compounds

Order information

Designation	Contents	Colour	PU	Article number
GU flat nozzle for adhesives and sealing compounds for cartridges	–	–	20 pcs	H-01465-00-0-0
Adapter for soft-pack guns	–	–	5 pcs	H-01466-00-0-0

Processing

- Screw the flat nozzle onto the can of adhesive/sealing compound. Cut the application apertures to the desired application width and number. The adhesive/sealing compound can now be applied using a hand-operated gun, by placing the flat nozzle against the appropriate surface. Cut off the lateral guide support for application to inner edges.

GU pressure roller

for GU window sealing tape – internal/external use

Product description

For fast and easy mounting of self-adhesive GU window sealing tapes. The entire adhesion surface can be pressed on to the masonry.

The pressure roller can also be used in combination with our standard GU window sealing tape for internal/external use, and super/ultra waterproof compound.

Product characteristics

- Conical, hard plastic roller
- Roller width 40 mm
- High-strength galvanized bracket
- Robust PVC handle

GU pressure roller

for GU window sealing tape – internal/external use

Order information

Designation	Contents	Colour	PU	Article number
GU pressure roller	–	–	1 pc	H-01528-00-0-0

GU PVC adhesive

Product description

GU PVC adhesive is characterised by excellent thermal endurance and outstanding resistance to UV radiation. The adhesive was tested and found suitable in terms of the requisite weather-fast properties for use in window construction in 1988 by the officially acknowledged testing facility for plastics – the Süddeutsches Kunststoff-Zentrum in Würzburg – taking into consideration RAL guidelines 716/1 section 3.2.5, which is to say that there is no yellowing of the adhesive.

Applications

GU PVC adhesive is used by specialist companies for constructional gluing of hard PVC parts:

- In window construction for gluing additional profiles such as weatherboards, rain deflectors, rebates and shutter boards
- In sanitary applications for gluing pipework, gutters and the like
- In exhibition stand and sign construction, for constructional gluing of integral rigid foam panels, e.g. Forex from rigid PVC

GU PVC adhesive

Technical data and requirements

GU PVC adhesive	Classification and grading	NF / ISO / DIN standard
Base	Diffusion adhesive, vinyl chloride polymers in solvent	
Film characteristics of the cured film	Tough, impact-resistant	
Viscosity Cone and plate +25 °C, 60s-1 – transparent – white	 Approx. 4,000 mPa.s (thixotropic) Approx. 4,000 mPa.s (thixotropic)	
Density [1]	Approx. 0.99 g/cm³	DIN EN 542
Open time [2] [3]	Approx. 60 seconds	
Functional hardness when gluing tension-free battens	Approx. 2 to 4 minutes	
Curing time [2] [4]	Approx. 24 hours (~90%)	
Minimum processing temperature	from +5 °C	
Flash point	–14 °C	
Ignition temperature	+212 °C	

[1] Measured at 20 °C.
[2] Measured at 20 °C and 50% relative air humidity.
[3] Application quantity 150 µm glass.
[4] Diffusion of the residual solvent may take up to 8 weeks.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU PVC adhesive	Aluminium membrane tube	200 g	Transparent	50*	H-00012-00-0-0
		200 g	White	30*	9-38968-00-0-7

* Shipping units: 30 tubes per cardboard box or 50 tubes per cardboard box. Other container sizes (cans, tubs, drums) and colours on request.

GU PVC adhesive

Substrates

- Clean bonding surfaces, ideally using GU PVC cleaner, to remove dirt, grease, moisture and other contamination prior to gluing. The cleaning cloths used must not stain and must be lint-free.

Processing

- GU PVC adhesive is applied to the adhesion surface on one side directly from the tube as a bead (snake-like). The parts to be bonded are joined within the OPEN TIME (30–60 s) and fastened or compressed until the functional hardness is achieved. The adhesive joint is load-bearing after 16 hours; it can take up to 8 weeks for a full cure of the joint, depending on circumstances.
- To optimise the bond strength, we recommend thoroughly cleaning the adhesive surfaces with solvent cleaners from the GU cleaner product range before gluing
- When gluing additional profiles (adhesion surface: hard PVC) to Renolit film surfaces, care should be taken to ensure that the additional profiles rest flat against the window profile. The application quantity should be measured such that no adhesive escapes from the adhesive joint when joining the additional profile. Additional profiles affixed in this way should not be exposed to increased temperature loads or sunlight (> +25 °C) for the period of a week. Failure to observe these conditions can lead to blister formation in the acrylic coating.
- Not suitable for gluing pressure pipes
- Only adhesive gaps < 0.1 mm can be bridged non-positively using diffusion adhesives
- **Adhesive application quantity:** the application quantity should be chosen dependent on the material thickness, the adhesive can "penetrate through".
  Application quantity when gluing battens:

  – 20 mm wide adhesive surface approx. 8 g/m
  – 40 mm wide adhesive surface approx. 16 g/m
- Open time and any compression times required can only be exactly determined through specific testing, as they are heavily influenced by material, temperature, application quantity, air humidity, moisture content of the material, adhesive film thickness, applied pressure and other criteria. Appropriate safety margins should generally be added to the guide values.

Cleaning

- GU PVC cleaner, dissolving, is suitable for cleaning GU PVC adhesive from tools prior to curing. To clean GU PVC adhesive from metal surfaces, simply pull off the cured adhesive film, as it does not adhere to metal. To clean GU PVC adhesive from hard PVC profiles, the adhesive should be removed using a scraper.

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight. Viscosity will increase during storage. Agitate before use.

GU PVC cleaner

dissolving

Product description

GU PVC cleaner, dissolving, is particularly suited to preparation for gluing or for removing marks and rough dirt, as well as for cleaning a variety of non-transparent thermoplastics and duroplasts in a wide range of industrial applications. The cleaned profiles, together with GU PVC adhesive, were tested and found suitable in terms of their weather-fast properties by the officially acknowledged testing facility for plastics – the Süddeutsches Kunststoff-Zentrum in Würzburg – taking into consideration RAL guidelines 716/1 Part 1, section 3.2.5.

Applications

- GU PVC cleaner, dissolving, is used by specialist companies as a slightly dissolving cleaning agent for profiles made of hard PVC, white, in plastic window construction

GU PVC cleaner

dissolving

Technical data and requirements

GU PVC cleaner, dissolving	Classification and grading	NF / ISO / DIN standard
Base	Mixed monocarbonic acid ester, free of aromatics and chlorinated hydrocarbons	
Density [1]	Approx. 0.90 g/cm³	DIN EN 542
Minimum processing temperature	from +5 °C	
Flash point	-4 °C	
Ignition temperature	+460 °C	

[1] Measured at 20 °C.

Order information

Designation	Packaging	Contents	Colour	PU/Box*	Article number
GU PVC cleaner, dissolving	Metal bottle	1000 ml	–	12 pcs	9-38970-00-0-0

* Other container sizes available on request.

Order information – Accessories

Designation	PU	Article number
GU water-saving moistener, empty, filling volume max. 4 litres	1 pc	H-01177-00-0-0

Processing

- The dry, dust-free surface of the material is cleaned using a dry, lint-free and non-staining cloths made of cellulose or cotton. If large amounts of dust have accumulated on the surfaces, they must be cleaned first using GU PVC cleaner, non-etching.
- Due to the hygroscopic effect of slightly dissolved PVC, cleaners containing solvents must only be used in dry atmospheric conditions! As a rule, it is sufficient to wipe the surfaces to be cleaned, if the soiling is more extensive, the cleaning operation can be repeated if necessary once the surface of the material has fully cured.

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight

Safety instructions

- GU PVC cleaner, dissolving, is subject to labelling requirements under the German Hazardous Substances Ordinance (GefStoffV)

GU PVC cleaner

non-etching

Product description

GU PVC cleaner, non-etching, is particularly well suited to cleaning off dust, adhesive residues from protective films, marking pencil, traces of rubber, fresh PUR foam and fresh sealing compound residue, and tar and bitumen spatters. The integrated static inhibitor effectively hinders the tendency of the profile surfaces to pick up dust again quickly.

Applications

- GU PVC cleaner, non-etching, is used by specialist companies as a non-etching cleaning agent with static inhibitor for cleaning hard PVC, laminated Renolit films, PUR profiles and PVC rigid foam panels, e.g. Forex
- Its good compatibility with many plastic surfaces coupled with the anti-static effect means that GU PVC cleaner, non-etching, is also perfectly suited to exhibition stand construction, sign-making and, above all, plastics processing

GU PVC cleaner

non-etching

Technical data and requirements

GU PVC cleaner, non-etching	Classification and grading	NF / ISO / DIN standard
Base	Mixed aliphatic hydrocarbons, free of aromatics and chlorinated hydrocarbons	
Density [1]	Approx. 0.71 g/cm³	DIN EN 542
Minimum processing temperature	from +5 °C	
Flash point	–14 °C	
Ignition temperature	+260 °C	

[1] Measured at 20 °C.

Order information

Designation	Packaging	Contents	Colour	PU/Box*	Article number
GU PVC cleaner, non-etching	Metal bottle	1000 ml	–	12 pcs	H-00013-00-0-0

* Other container sizes available on request.

Order information – Accessories

Designation	PU	Article number
GU water-saving moistener, empty, filling volume max. 4 litres	1 pc	H-01177-00-0-0

Processing

- The dry, dust-free surface of the material is cleaned using a dry, lint-free and non-staining cloths made of cellulose or cotton
- When using with any plastic surfaces not mentioned here, it is advisable to carry out adequate suitability tests prior to application
- When using cleaning agents to pre-clean material surfaces prior to applying adhesives or sealants, the integrated static inhibitor can negatively influence the adhesion characteristics in some circumstances

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight

GU instant adhesive

Product description

GU instant adhesive is a fast-curing 1-component adhesive for trade and industrial application by specialist companies.

It is characterised by particularly short bonding times and has good resistance to the effects of cold, heat and weather.

Applications

- Areas of use include
  - Sealing technology
  - Draining technology
  - Plastics and metals processing industries
- For gluing diverse rubber and plastic surfaces
- In window construction, for gluing EPDM sealing profiles, e.g. to mitres and edges, and also to hard PVC and aluminium profiles
- Together with GU primer for gluing silicone and TPE seals

GU instant adhesive

Technical data and requirements

GU instant adhesive	Classification and grading	NF / ISO / DIN standard
Base	Modified cyanoacrylate	
Film characteristic of the cured film	Hard	
Viscosity	Approx. 20 mPa.s measured by cone and plate (3,000 s^{-1})	
Density [1]	Approx. 1.05 g/cm^3	DIN EN 542
Functional hardness time of EPDM / EPDM profile seal	< 4 seconds	
Curing time [2]	Approx. 16 hours	
Softening range	Approx. +80 °C	

[1] Measured at 20 °C.
[2] Measured at 20 °C and 50% relative air humidity.

Order information

Designation	Packaging	Contents	Colour	PU/Box*	Article number
GU instant adhesive	PE bottle	20 g	–	20 pcs	9-38969-00-0-0

* Other container sizes available on request.

GU instant adhesive

Processing

- GU instant adhesive is applied from the dispensing bottle to one side of the dry adhesion surface, which should be free of grease and dust The adhesion surfaces can be cleaned with GU aluminium cleaner or GU PVC cleaner, dissolving, or with acetone, depending on the resistive properties of the material surfaces. The adhesion surfaces are joined within the film formation time of the adhesive and compressed until the necessary functional hardness is achieved.
- GU instant adhesive cures as a result of humidity and temperature. Owing to the relatively low viscosity, GU instant adhesive is not capable of bridging adhesive gaps > 0.1 mm.
- When gluing the external glass strip seals in window construction, ift-Rosenheim recommends that, as well as gluing the mitre cut using instant adhesive, the profile corner pieces of the glass pane should also be glued using a neoprene rubber filling compound or sealant in order to achieve durable impermeability to driving rain.
- **Gluing of aluminium:** only to chemically pretreated or painted surfaces; it is not possible to achieve a durable, aging-resistant bond to an aluminium sheet without appropriate pretreatment of the adhesion surfaces. Gluing materials with different linear thermal expansion behaviour must be evaluated in respect of long-term performance, especially where fluctuating operating temperatures will occur.
- When gluing silicone and TPE profiles, it is essential to carry out specific pretests owing to the variety of materials
- **Application quantity:** dropwise, depending on use. The open time and any compression times required can only be exactly determined through specific testing, as they are heavily influenced by material, temperature, application quantity, air humidity, moisture content of the material, adhesive film thickness, applied pressure and other criteria. Appropriate safety margins should generally be added to the guide values.
- **Cleaning:** the cleaning of cured cyanoacrylate adhesives is usually carried out by mechanical means

Storage

- Store in original container tightly sealed, dry and out of direct sunlight
- Can be stored at temperatures between +15 °C and +25 °C
- Optimum storage temperature: +2 °C to +8 °C

GU aluminium cleaner

Product description

GU aluminium cleaner removes dust, adhesive residues from protective films, marking pencil, traces of rubber, fresh PUR foam and fresh sealing compound residue, and tar and bitumen spatters. GU aluminium cleaner is used to clean adhesion surfaces prior to gluing, and for removing residues of various adhesive systems prior to curing.

Applications

- GU aluminium cleaner is used in trade and industry as a low-odour, fast-drying specialised cleaner
- Owing to its good compatibility with many coated surfaces it is perfectly suited to many areas of plastics and metals processing
- GU aluminium cleaner is used by specialist companies on powder-coated and anodised aluminium profiles and PUR profiles

GU aluminium cleaner

Technical data and requirements

GU aluminium cleaner	Classification and grading	NF / ISO / DIN standard
Base	Mixed aliphatic hydrocarbons, free of aromatics and chlorinated hydrocarbons	
Density [1]	Approx. 0.71 g/cm³	DIN EN 542
Minimum processing temperature	from +5 °C	
Flash point	–14 °C	
Ignition temperature	+260 °C	

[1] Measured at 20 °C.

Order information

Designation	Packaging	Contents	Colour	PU/Box*	Article number
GU aluminium cleaner	Metal bottle	1000 ml	–	12 pcs	H-00014-00-0-0

* Other container sizes available on request.

Order information – Accessories

Designation	PU	Article number
GU water-saving moistener, empty, filling volume max. 4 litres	1 pc	H-01177-00-0-0

Processing

- The dry, dust-free surface of the material is cleaned using a dry, lint-free and non-staining cloths made of cellulose or cotton
- In general, GU aluminium cleaner does not dissolve or etch coated surfaces; however, because of the variety of surfaces and coating formulations in use, we recommend carrying out suitability tests.
- If coloured pigments can be seen in the cleaning cloth when cleaning powder-coated surfaces, this may be an indication that the powder coating is not sufficiently cured. In this case, the powder coating company should also be contacted at the same time.

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight

GU 1K aluminium adhesive

Product description

GU 1K aluminium adhesive is a solvent-free, joint filling, multipurpose polyurethane structural adhesive with fast reaction time and viscoplastic adhesion joint.

It exhibits excellent adhesion to different wood-based and construction materials, ceramics, metals, duroplasts and thermoplastics, with appropriate pretreatment of surfaces, and meets stress group D4 of EN 204 when gluing wood to wood.

Applications

- GU 1K aluminium adhesive is used by specialists in the construction of aluminium fenestration for gluing corner angles
- GU 1K aluminium adhesive is used for various applications in stair construction, in the building trade, in many assembly bonding applications and by specialist companies in various fields of industry

GU 1K aluminium adhesive

Technical data and requirements

GU 1K aluminium adhesive	Classification and grading	NF / ISO / DIN standard
Base	One-component moisture-cured polyurethane, solvent-free (free of highly volatile organic compounds, boiling point < +240 °C) VOC-free in accordance with the Swiss VOC directive	
Film characteristics of the cured film	Viscoplastic	
Viscosity [1]	Medium viscosity paste	
Density [1]	Approx. 1.52 g/cm³	DIN EN 542
Film formation time – dry [2]	Approx. 7 minutes	
Film formation time – wet [3]	Approx. 4 minutes	
Functional hardness time [1]	from approx. 20 minutes, depending on application	
Curing time [4]	Approx. 24 hours	
Minimum processing temperature	from +7 °C	

[1] Measured at 20 °C.
[2] Measured at 20 °C and 50% relative air humidity, application quantity 500 µm-PE/PVC.
[3] Measured at 20 °C, sprinkled with water, application quantity 500 µm-PE/PVC.
[4] Measured at 20 °C and 50% relative air humidity, 2.5 mm bead of adhesive.

Order information

Designation	Packaging	Contents	Colour	PU/Box*	Article number
GU 1K aluminium adhesive	PE Euro cartridge	310 ml (470 g)	White	20 pcs	H-00017-00-0-0

* Other container sizes and colours available on request.

GU 1K aluminium adhesive

Processing

- The surfaces of the substrates to be stuck must be dry and free of dust and grease. Any release agents present should be removed. Depending on the finish of the materials and surfaces, the glued surfaces should be ground; it may also be advisable to prime the glued surfaces with GU primer. As a general rule, in aluminium window construction the corner pieces are stuck in without additional pretreatment of the profile chambers.
- GU 1K aluminium adhesive is applied to one of the parts to be joined as a bead The adhesive is moisture-curing, i.e. to glue together non-porous materials or materials with a moisture content of < 8%, the glue must be sprinkled (misted) with water after application to achieve a complete full cure. The parts to be joined are joined within the film formation time (max. 4 minutes after moistening) and, if necessary, compressed until the functional hardness is achieved.
- GU 1K aluminium adhesive swells up (foams) slightly during the curing process; emerging adhesive can be removed when fresh with GU aluminium cleaner. When cured, GU 1K aluminium adhesive can be sanded and painted over.
- **Note:** during processing, the viscosity of 1-component PUR adhesives is approximately twice as high at +15 °C as at +25 °C
- The colour of the adhesive will change as a result of sunlight, but the stability remains constant
- **Gluing of aluminium:** only to chemically pretreated or painted surfaces; it is not possible to achieve a durable, aging-resistant bond to an aluminium sheet without appropriate pretreatment of the adhesion surfaces.
- Gluing materials with different linear thermal expansion behaviour must be evaluated in respect of long-term performance, especially where fluctuating operating temperatures will occur
- When gluing solid wood to solid wood, the pressure applied should as far as possible be > 1 N/mm^2
- For adhesive joint thicknesses > 2.5 mm, the bonding, compression and full cure times will be significantly longer; adhesives joint thicknesses ≥ 5 mm are to be avoided
- Application quantity depending on substrate approx. 150–200 g/m^2
- Film formation times and any compression times required can only be exactly determined through specific testing, as they are heavily influenced by material, temperature, application quantity, moisture and other criteria. Appropriate safety margins should be added to the specified guide values.
- **Cleaning:** GU 1K aluminium adhesive can be cleaned off with GU aluminium cleaner prior to curing. Once cured, GU 1K aluminium adhesive can normally only be cleaned by mechanical means.

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight. Viscosity will increase during storage

GU 2K aluminium adhesive

Product characteristics

- Hollow chamber profiles glued with GU 2K aluminium adhesives can subsequently be powder coated
- When used in constructional gluing GU 2K aluminium adhesive is characterised by easy handling of the tandem cartridge with static mixer
- GU 2K aluminium adhesive is thixotropic, does not drip, contains no solvents and can be painted over when cured
- GU 2K aluminium adhesive is highly weather resistant

Applications

- Used by companies specialising in the construction of aluminium windows, doors and facades: GU 2K aluminium is suitable for constructional gluing of aluminium corner angles in anodised and powder-coated frame and sash profiles
- In specialist vehicle construction companies, the adhesive is used to create non-positive constructional bonds in GRP sandwich structures
- GU 2K aluminium adhesive is used for gluing joints in gypsum plaster board panels and for filling of assembly joints up to 8 mm wide and subsequent openings or for repair of damaged joints
- Also suitable for gluing other materials such as aluminium and HPL

GU 2K aluminium adhesive

Technical data and requirements

GU 2K aluminium adhesive	Classification and grading	NF / ISO / DIN standard
Base	2-component PUR reactive adhesive, solvent-free (free of highly volatile organic compounds, boiling point < +170 °C)	
Film characteristics of the cured film	Tough	
Shore hardness of the film cured at +20 °C	85 Shore D	DIN 53505
Mixing ratio in parts by volume	A:B = 1.0 : 1.0 ml	
Viscosity at +20 °C – GU 2K aluminium adhesive mixture, beige – Binder – Hardener	 Low viscosity paste Low viscosity paste Low viscosity paste	
Density [1] – GU 2K aluminium adhesive mixture, beige	 Approx. 1.52 g/cm³	 DIN EN 542
Pot life of a 100 g batch at +20 °C	Approx. 60 minutes	
Processing time of the tandem cartridge with static mixer tube at +20 °C with tandem compressed air gun [1]	Approx. 45 minutes	
Functional hardness time e.g. corner piece gluing at +20 °C	Approx. 6 hours	
Curing time [2] until final stability achieved	Approx. 24 hours Approx. 7 days	
Minimum processing temperature	from +7 °C	
Combined tension and shear resistance [3]	at +20 °C approx. 18.0 N/mm² at +80 °C approx. 9.0 N/mm²	DIN EN 1465

[1] At +30 °C, processing times are reduced by about half; at +10 °C they are approximately doubled.
[2] Measured at 20 °C and 60% relative air humidity to ~75%.
[3] Aluminium/aluminium, 0.2 mm joint.

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU 2K aluminium adhesive	Tandem cartridge	550 g	Beige	10 pcs	H-00015-00-0-0
	Tandem cartridge	900 g	Beige	10 pcs	H-00015-90-0-0
	Tandem cartridge	550 g	White	10 pcs	H-00015-00-0-7
	Tandem cartridge	550 g	Anthracite grey	10 pcs	H-00015-00-0-6

GU 2K aluminium adhesive

Processing

- **Gluing of aluminium:** only to chemically pretreated or painted surfaces; it is not possible to achieve a durable, aging-resistant bond to an aluminium sheet without appropriate pretreatment of the adhesion surfaces.
- Gluing materials with different linear thermal expansion behaviour must be evaluated in respect of long-term performance, especially where fluctuating operating temperatures will occur
- The colour of the adhesive will change as a result of sunlight, but the stability remains constant
- **Application quantity:** on average approx. 20 g/corner piece
- Pot life and any compression times required can only be exactly determined through specific testing, as they are heavily influenced by material, temperature, application quantity, moisture and other criteria. Appropriate safety margins should be added to the specified guide values.
- **Cleaning:** GU 2K aluminium adhesive can be cleaned off with GU aluminium cleaner prior to curing. Once cured, GU 2K aluminium adhesive can normally only be cleaned by mechanical means.

Mixing process

- The static mixer tube is screwed onto the open adhesive cartridge. By activating the hand-operated or compressed air gun, the homogeneously mixed adhesive in the static mixer tube is applied directly to the dry profile – which should be free of dust and grease – and the parts are joined, then fastened/compressed until the functional hardness is achieved.
  - For safety reasons (cartridge filling technique), the first 20 g of mixed adhesive should not be used for gluing! Processing time is ~45 min/RT. If short breaks are taken during the processing time, fresh adhesive will once again be drawn into the static mixer tube when dispensing is resumed. As a result, one static mixer tube can be used over an entire working day.
  - After finishing work, the used static mixer tube remains on the cartridge unit; when work is resumed the static mixer is replaced; an initial ~20 g shot of adhesive should again be discarded before gluing is continued

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight

Safety instructions

- GU 2K aluminium adhesive binder is not subject to labelling requirements under the German Hazardous Substances Ordinance (GefStoffV)
- GU 2K aluminium adhesive hardener is subject to labelling requirements under the German Hazardous Substances Ordinance (GefStoffV)

GU 2K aluminium adhesive

Accessories – GU mixing tube

Product description

The GU mixing tube is used to achieve a homogenous mixture of GU 2K aluminium adhesive during processing/dispensing from 550 g or 900 g dual-chamber (tandem) cartridges.

Order information

Designation	Packaging	Contents	Colour	PU	Article number
GU mixer tube	–	–	–	15 pcs	H-00016-00-0-0
				75 pcs	H-00016-75-0-0

Processing

- The GU mixing tube is screwed onto the open adhesive cartridge. By activating the gun, in accordance with the cartridge unit, the adhesive is homogeneously mixed in the GU mixing tube.
- For safety reasons (cartridge filling technique), the first 20 g of mixed adhesive should not be used for gluing
  - **Example:**
    Processing time is ~45 min/RT. If short breaks are taken during the processing time, fresh adhesive will once again be drawn into the GU mixer tube when dispensing is resumed. As a result, one GU mixing tube can be used over an entire working day.
- After finishing work, the used GU mixing tube remains on the cartridge unit; when work is resumed it is replaced; an initial ~20 g shot of adhesive should again be discarded before gluing is continued.

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight

GU 2K aluminium adhesive

Hand-operated and compressed air guns

GU tandem hand-operated gun

GU tandem compressed air gun

Order information

Designation	Processing of	PU	Article number
GU tandem hand-operated gun	Tandem cartridge 550 g	1 pc	H-00054-00-0-0
GU tandem hand-operated gun	Tandem cartridge 900 g	1 pc	H-01100-00-0-0
GU tandem compressed air gun	Tandem cartridge 550 g	1 pc	H-01128-55-0-0
GU tandem compressed air gun	Tandem cartridge 900 g	1 pc	H-01128-90-0-0

GU basic maintenance set

Product description

Detergent surfactant-based cleaner for all window and door surfaces – including powder-coated – and for film-laminated and coated decorative wood profiles and door panels.

Product characteristics

- Intensive yet gentle cleaning effect
- pH neutral
- Gentle on the skin
- Excellent cleaning effect even in diluted form (mixing ratio 1:3 to 1:5 with water)
- Enclosed seal care cloths prevent stickiness of seals in summer and frosting in winter

Applications

- In window construction for cleaning window components
- In production and installation, for regular care of already installed window, door and shutter profiles
- For streak-free cleaning of glass, metal and high gloss surfaces and also of office furniture and of a variety of plastic surfaces such as monitors
- As an intensive cleaner in diverse areas of industry
- Caring for window and door seals made of EPDM, silicone, TPE
- To preserve the value of hardware

GU basic maintenance set

Order information

Designation	Set consisting of	PU	Article number
GU basic maintenance set	1 bottle of cleanser (100 ml) 3 seal care cloths 1 bottle of special oil for hardware (30 ml) 1 cleaning wipe	40 pcs	H-01183-00-0-0

Processing

- Shake GU cleanser before use!
- GU cleanser is applied to the surface straight from the bottle using a lint-free, slightly moist cloth. After a short contact time, the surface is cleaned by gently rubbing lengthwise along the profile. Circular rubbing motions should be strictly avoided during cleaning!
- The minimum processing temperature is +5 °C
- Spraying on and allowing a longer contact time improves the cleaning effect. After cleaning, the surface is wiped down with a wet cloth
  - Too intensive cleaning can cause a shine to form on coated and film-laminated surfaces
  - If the cleaner is to be applied to electrical and electronic work equipment, care should be taken when spraying to ensure that the spray does not make any electric components wet, to avoid the risk of a short circuit!

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight

GU premium maintenance set

Product description

Abrasive intensive cleaner without solvent for cleaning hard white PVC and anodised aluminium, and for cleaning other smooth, predominantly plastic surfaces.

Product characteristics

- Intensive yet gentle cleaning effect
- pH neutral
- Gentle on the skin
- Enclosed seal care cloths prevent stickiness of seals in summer and frosting in winter

Applications

- In window construction for cleaning window components
- In production and installation, for regular care of already installed window, door and shutter profiles
- Caring for window and door seals made of EPDM, silicone, TPE
- To preserve the value of hardware

GU premium maintenance set

Order information

Designation	Set consisting of	PU	Article number
GU premium maintenance set	1 bottle of cleanser (200 ml) 5 seal care cloths 1 bottle of special oil for hardware (30 ml) 1 cleaning wipe	20 pcs	H-01184-00-0-0

Processing

- Shake GU cleanser before use!
- GU cleanser is applied to the surface straight from the bottle using a lint-free, slightly moist cloth. After a short contact time, the surface is cleaned by gently rubbing lengthwise along the profile. Circular rubbing motions should be strictly avoided during cleaning!
- For stubborn patches of dirt, the cleaning process can be repeated
- After cleaning, the surface is wiped down with a wet cloth
- The minimum processing temperature is +5 °C

Storage

- Original container tightly sealed, dry at temperatures of +15°C to +25°C out of direct sunlight

General information

Fastening technology for window production

For PVC window production

For timber window production

For aluminium window production

Fastening technology for window installation

Fastening technology for projecting installation

Gretsch-Unitas fastening technology

GU provides products for fastening technology to selected market segments in the building industry that require professional applications in the outer skin of buildings. Users benefit from our high product quality. After all, reliable installation keeps the costs arising from manufacturing errors to a minimum. What's more, durable quality connections safeguard against costly customer complaints.

We collaborate closely with our customers to produce optimum fastening solutions for the building envelope of today and tomorrow. Why not make use of this leading edge for your building project!

Figure: image of plant HOBA © 1997-2014 · all rights reserved.

Getty Images

Fastening technology for window production

GU supplies exclusively roller-sorted window drilling screws for reliable screw connections in modern window production systems. The GU quality provides a high degree of sorting accuracy and eliminates problems in assembly processes and improves the results of automatic screw installation. This maximises your profitability.

Fastening technology for window installation

One-stop service: GU covers all your sealing and insulation requirements, including installation screws and anchors for projecting installation.

Fastening technology for projecting installation

By using GU supporting consoles and GU frames for projecting installation, structural elements can be mounted in the insulation plane without thermal bridges occurring. GU assembly systems satisfy the demands for load absorption, thermal protection, wind tightness and sound insulation with maximum efficiency.

Gretsch-Unitas fastening technology

GU window screws do not require a CE marking

The new EU Construction Products Regulation (CPR) came into force in 2013. Since then, all products for which a harmonised technical specification exists (harmonised standards or European evaluation documents) must carry a CE mark. Manufacturers are obliged to submit a declaration of performance for these products and must also ensure traceability.

The product standard EN 14351-1 sets out a standard for the performance characteristics of "Windows and external doors without characteristics in terms of fire protection and/or smoke-tightness" applies for windows and external doors. No harmonised standards or European evaluation documents exist for the screws and also for most hardware used in window construction. Consequently, CE marking of GU window construction screws and installation materials is currently not possible, and is also not required.

ferGUard*silver surface sealing

Greater corrosion protection due to high performance sealing material. To stabilise the passivation layer of galvanised zinc or zinc alloy coatings, seals are applied as an additional layer. ferGUard is an an organic silicone-based sealing material which enhances the corrosion protection and temperature stability of connecting elements with zinc or zinc alloy coatings. ferGUard is free of silicone and solvents. The ferGUard coating is ecologically harmless and the dry film contains no chromates.

The layer is transparent once applied and is roughly 0.5 to 2 µm thick. ferGUard contains no anti-friction additives and is therefore ideal for screwing directly into plastics.

GU drill screw D1 for windows

for hardware installation

Product characteristics

- Classic hardware screw, incorporating the latest technology, with double-pitch thread
- Also ideal for thin-walled profiles
- High overtorquing and extraction values in PVC
- Roller-sorted quality for automatic screwing
- Steel, case hardened

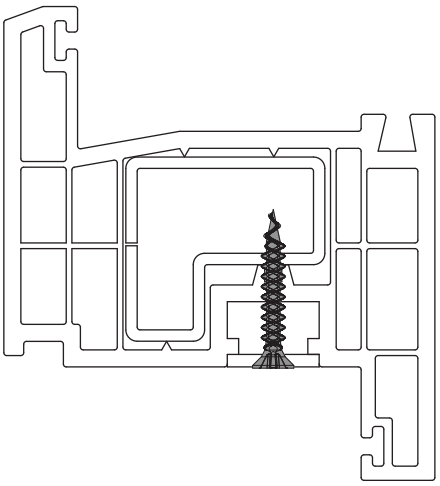
Applications

- Fastening of Tilt&Turn hardware in normal and thin-walled PVC profiles and also in steel or GFRP inserts
- Fastening of closing parts, hinges and bearings

Processing

- Screwing with speeds of approx. 1,500 to 2,000 rpm
- Can be screwed into steel; pre-drilling required (see technical data and requirements)
- Can be screwed into GFRP without pre-drilling

Installation sketch



Technical data and requirements	
Head diameter	7.3 mm
Drive	Philips PH 2
Thread type	Double-pitch thread
Sheet metal thickness	**Pre-drill diameter**
1.5 mm	3.0 mm
2.0 mm	3.2 mm
2.5 mm	3.5 mm

GU drill screw D1 for windows

for hardware installation

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw D1 for windows	**Galvanised finish, blue passivated**			
	13 mm	4.2 mm	1,000 pcs	E-12562-13-0-1
	16 mm	4.2 mm	1,000 pcs	E-12562-16-0-1
	20 mm	4.2 mm	1,000 pcs	E-12562-20-0-1
	25 mm	4.2 mm	1,000 pcs	E-12562-25-0-1
	30 mm	4.2 mm	1,000 pcs	E-12562-30-0-1
	35 mm	4.2 mm	1,000 pcs	E-12562-35-0-1
	40 mm	4.2 mm	1,000 pcs	E-12562-40-0-1
	45 mm	4.2 mm	1,000 pcs	E-12562-45-0-1
	55 mm	4.2 mm	1,000 pcs	E-12562-55-0-1
	65 mm	4.2 mm	1,000 pcs	E-12562-65-0-1
	ferGUard finish			
	13 mm	4.2 mm	1,000 pcs	E-12562-13-0-2
	16 mm	4.2 mm	1,000 pcs	E-12562-16-0-2
	20 mm	4.2 mm	1,000 pcs	E-12562-20-0-2
	22 mm	4.2 mm	1,000 pcs	E-12562-22-0-2
	25 mm	4.2 mm	1,000 pcs	E-12562-25-0-2
	28 mm	4.2 mm	1,000 pcs	E-12562-28-0-2
	30 mm	4.2 mm	1,000 pcs	E-12562-30-0-2
	35 mm	4.2 mm	1,000 pcs	E-12562-35-0-2
	40 mm	4.2 mm	1,000 pcs	E-12562-40-0-2
	45 mm	4.2 mm	1,000 pcs	E-12562-45-0-2
	55 mm	4.2 mm	1,000 pcs	E-12562-55-0-2
	Galvanised finish, white head			
	16 mm	4.2 mm	1,000 pcs	E-14543-16-0-7
	25 mm	4.2 mm	1,000 pcs	E-14543-25-0-7

GU drill screw E1 for windows

for hardware installation

Product characteristics

- Cost-effective hardware screw with single-pitch thread
- Ribs under the head provide additional protection against overtorquing
- Slightly domed head ensures perfect optics, also with angled installation
- Roller-sorted quality for automatic screwing
- Steel, case hardened

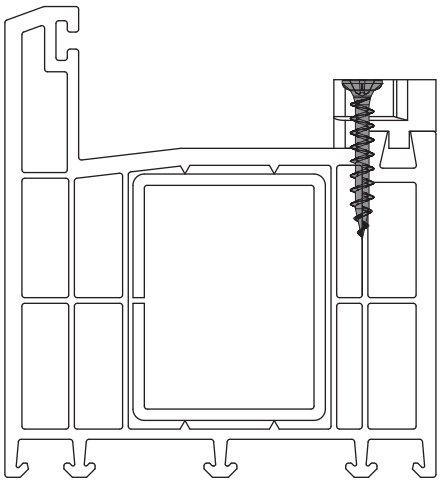
Applications

- Fastening of Tilt&Turn hardware in PVC profiles and also in steel or GFRP inserts
- Fastening of closing parts, hinges and bearings

Processing

- Screwing with speeds of approx. 1,500 to 2,000 rpm
- Can be screwed into steel; pre-drilling required (see technical data and requirements)
- Can be screwed into GFRP without pre-drilling

Installation sketch



Technical data and requirements

Head diameter	7.0 mm
Drive	Philips PH 2
Thread type	Single-pitch thread
Sheet metal thickness	**Pre-drill diameter**
1.5 mm	3.0 mm
2.0 mm	3.0 mm
2.5 mm	3.0 mm

GU drill screw E1 for windows

for hardware installation

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw E1 for windows	**Galvanised finish, blue passivated**			
	22 mm	4.2 mm	1,000 pcs	H-00198-22-0-1
	25 mm	4.2 mm	1,000 pcs	H-00198-25-0-1
	30 mm	4.2 mm	1,000 pcs	H-00198-30-0-1
	35 mm	4.2 mm	1,000 pcs	H-00198-35-0-1
	40 mm	4.2 mm	1,000 pcs	H-00198-40-0-1
	45 mm	4.2 mm	1,000 pcs	H-00198-45-0-1
	ferGUard finish			
	16 mm	4.2 mm	1,000 pcs	H-00198-16-0-2
	20 mm	4.2 mm	1,000 pcs	H-00198-20-0-2
	22 mm	4.2 mm	1,000 pcs	H-00198-22-0-2
	25 mm	4.2 mm	1,000 pcs	H-00198-25-0-2
	28 mm	4.2 mm	1,000 pcs	H-00198-28-0-2
	30 mm	4.2 mm	1,000 pcs	H-00198-30-0-2
	35 mm	4.2 mm	1,000 pcs	H-00198-35-0-2
	40 mm	4.2 mm	1,000 pcs	H-00198-40-0-2
	45 mm	4.2 mm	1,000 pcs	H-00198-45-0-2
	55 mm	4.2 mm	1,000 pcs	H-00198-55-0-2

GU drill screw D1/Tg for windows

for fastening of racks and corner-drives

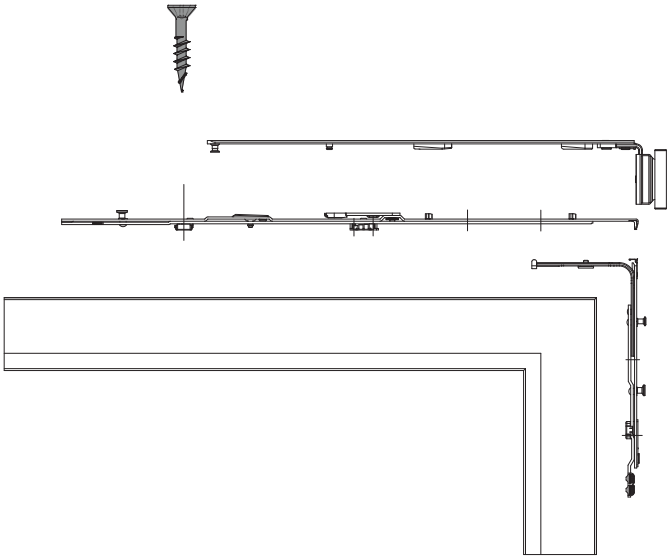
Product characteristics

- The thread-free section minimises friction at the rack/corner-drive connection
- Problem-free opening and closing of the window is ensured at all times
- Steel, case hardened

Applications

- Fastening of rack and corner-drive

Installation sketch



Technical data and requirements

Head diameter	7.3 mm
Drive	Philips PH 2
Thread type	Double-pitch thread

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw D1/Tg for windows	**ferGUard finish**			
	25 mm	4.2 mm	1,000 pcs	H-01355-25-0-2

GU drill screw H1 for windows

Service screw

Product characteristics

- With DSK tip for precise wobble-free screw connection in PVC
- With HT thread
- Steel, case hardened

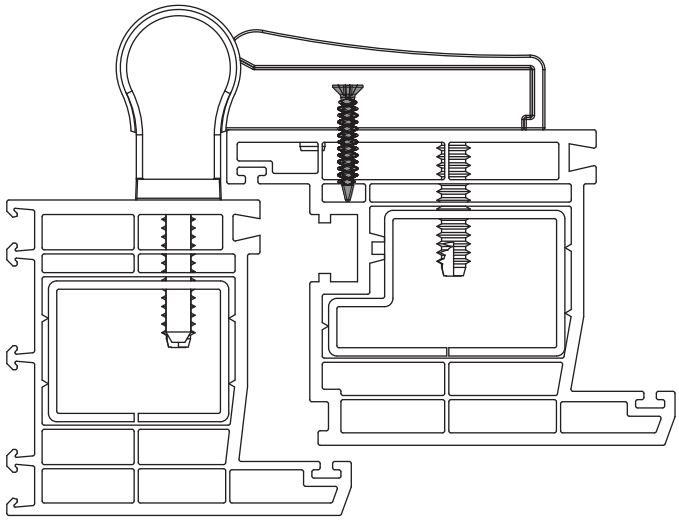
Applications

- For higher loads
- As a reliable replacement for overturned hardware screws

Processing

- Screwing with speeds of 800 to 1,500 rpm

Installation sketch



Technical data and requirements

Head diameter	7.3 mm
Drive	Philips PH 2
Thread type	HT thread

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw H1 for windows	**ferGUard finish**			
	25 mm	4.8 mm	1,000 pcs	E-12566-25-0-2
	30 mm	4.8 mm	1,000 pcs	E-12566-30-0-2
	38 mm	4.8 mm	1,000 pcs	E-12566-38-0-2

GU drill screw B7 for windows

for securing the reinforcement

Product characteristics

- Drilling capacity up to 4.0 mm
- One screw type for up to three applications
- Minimises application errors
- More reliable screwing process
- Roller-sorted quality for automatic screwing
- Steel, case hardened

Applications

- Metal core and hardware fastenings in thick-walled and multiple-walled PVC profiles as well as steel or aluminium reinforcement up to 4.0 mm

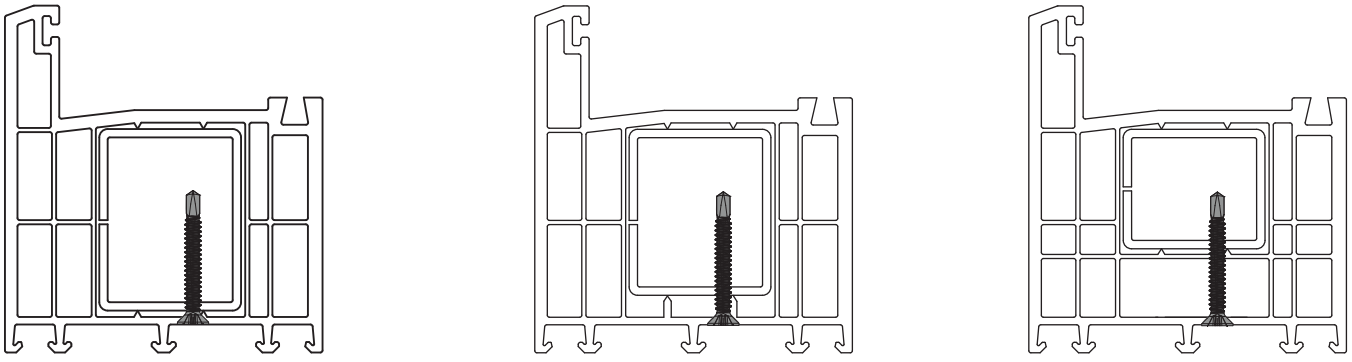
Processing

- Screwing with speeds of approx. 1,500 to 2,000 rpm

Technical data and requirements

Head diameter	7.5 mm
Drive	Philips PH 2
Thread type	Special thread

Installation sketch



Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw B7 for windows	**ferGUard finish**			
	16 mm	3.9 mm	1,000 pcs	H-01356-16-0-2
	19 mm	3.9 mm	1,000 pcs	H-01356-19-0-2
	22 mm	3.9 mm	1,000 pcs	H-01356-22-0-2
	25 mm	3.9 mm	1,000 pcs	H-01356-25-0-2
	32 mm	3.9 mm	1,000 pcs	H-01356-32-0-2
	38 mm	3.9 mm	1,000 pcs	H-01356-38-0-2
	45 mm	3.9 mm	1,000 pcs	H-01356-45-0-2

GU drill screw B1 for windows

for securing the reinforcement

Product characteristics

- Roller-sorted quality for automatic screwing
- Steel, tempered

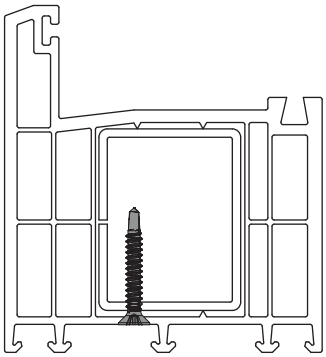
Applications

- Fastening of steel reinforcement up to 3.0 mm in PVC windows in which the reinforcement is close together
- Fastening of hardware components

Processing

- Screwing with speeds of approx. 1,500 to 2,000 rpm

Installation sketch



Technical data and requirements

Head diameter	7.5 mm
Drive	Philips PH 2
Thread type	ST thread

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw B1 for windows	**Galvanised finish, blue passivated**			
	13 mm	3.9 mm	1,000 pcs	E-12563-13-0-1
	16 mm	3.9 mm	1,000 pcs	E-12563-16-0-1
	19 mm	3.9 mm	1,000 pcs	E-12563-19-0-1
	25 mm	3.9 mm	1,000 pcs	E-12563-25-0-1
	32 mm	3.9 mm	1,000 pcs	E-12563-32-0-1
	ferGUard finish			
	13 mm	3.9 mm	1,000 pcs	E-12563-13-0-2
	16 mm	3.9 mm	1,000 pcs	E-12563-16-0-2
	19 mm	3.9 mm	1,000 pcs	E-12563-19-0-2
	22 mm	3.9 mm	1,000 pcs	E-12563-22-0-2
	25 mm	3.9 mm	1,000 pcs	E-12563-25-0-2
	28 mm	3.9 mm	1,000 pcs	E-12563-28-0-2
	32 mm	3.9 mm	1,000 pcs	E-12563-32-0-2
	38 mm	3.9 mm	1,000 pcs	E-12563-38-0-2
	45 mm	3.9 mm	1,000 pcs	E-12563-45-0-2

GU drill screw B2 for windows

for securing the reinforcement

Product characteristics

- Roller-sorted quality for automatic screwing
- Steel, case hardened

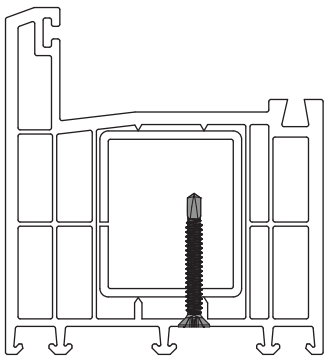
Applications

- Fastening of steel reinforcement up to 3.0 mm in PVC windows with spacer ribs
- Fastening of hardware components

Processing

- Screwing with speeds of approx. 1,500 to 2,000 rpm

Installation sketch



Technical data and requirements

Head diameter	7.5 mm
Drive	Philips PH 2
Thread type	ST thread

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw B2 for windows	**Galvanised finish, blue passivated**			
	16 mm	3.9 mm	1,000 pcs	E-12569-16-0-1
	19 mm	3.9 mm	1,000 pcs	E-12569-19-0-1
	25 mm	3.9 mm	1,000 pcs	E-12569-25-0-1
	32 mm	3.9 mm	1,000 pcs	E-12569-32-0-1
	ferGUard finish			
	16 mm	3.9 mm	1,000 pcs	E-12569-16-0-2
	19 mm	3.9 mm	1,000 pcs	E-12569-19-0-2
	22 mm	3.9 mm	1,000 pcs	E-12569-22-0-2
	25 mm	3.9 mm	1,000 pcs	E-12569-25-0-2
	32 mm	3.9 mm	1,000 pcs	E-12569-32-0-2
	38 mm	3.9 mm	1,000 pcs	E-12569-38-0-2

GU drill screw M2 for windows

for securing the reinforcement

Product characteristics

- Precision thread pitch of metric thread avoids forced feed in thick-walled PVC or in window profiles with several cavities
- Roller-sorted quality for automatic screwing
- Steel, case hardened

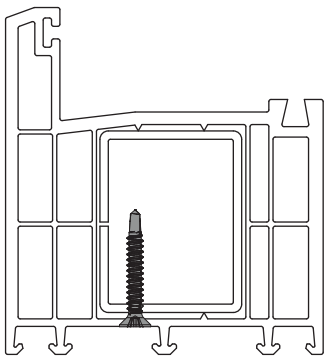
Applications

- Fastening of 1.5 to 3.5 mm thick steel reinforcement in thick or multi-walled PVC windows
- Fastening of hardware components

Processing

- Screwing with speeds of approx. 1,500 to 2,000 rpm

Installation sketch



Technical data and requirements

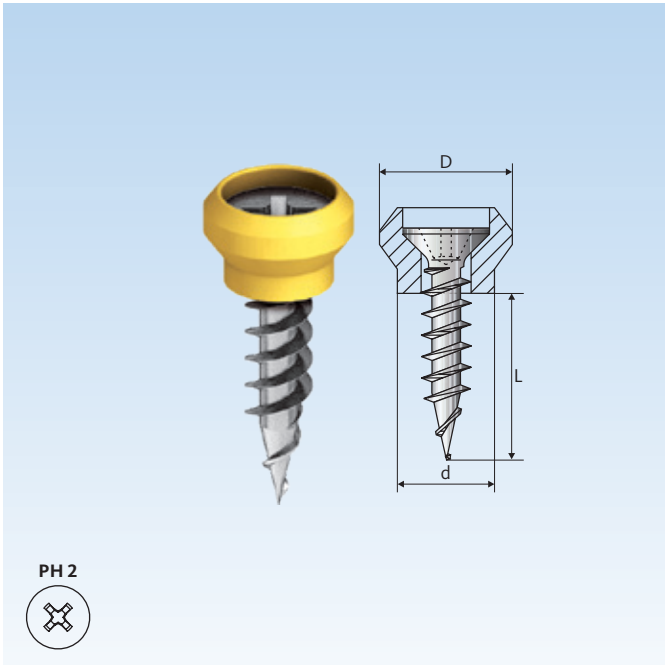
Head diameter	7.5 mm
Drive	Philips PH 2
Thread type	metric

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw M2 for windows	**Galvanised finish, blue passivated**			
	16 mm	M4	1,000 pcs	E-12575-16-0-1
	19 mm	M4	1,000 pcs	E-12575-19-0-1
	25 mm	M4	1,000 pcs	E-12575-25-0-1
	ferGUard finish			
	13 mm	M4	1,000 pcs	E-12575-13-0-2
	16 mm	M4	1,000 pcs	E-12575-16-0-2
	19 mm	M4	1,000 pcs	E-12575-19-0-2
	22 mm	M4	1,000 pcs	E-12575-22-0-2
	25 mm	M4	1,000 pcs	E-12575-25-0-2
	32 mm	M4	1,000 pcs	E-12575-32-0-2
	38 mm	M4	1,000 pcs	E-12575-38-0-2
	45 mm	M4	1,000 pcs	E-12575-45-0-2

GU roller shutter screw DC

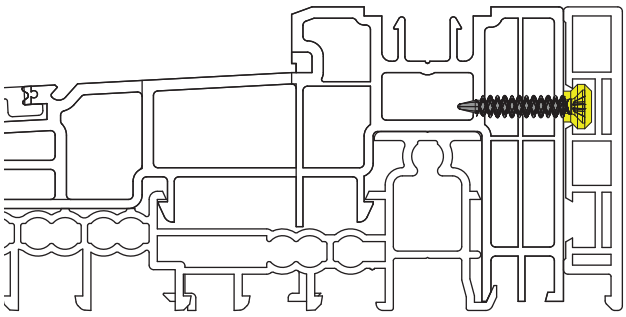
Clamping nipple screw



Applications

- Clamping assembly of
  - Roller shutter profiles
  - Drip rails

Installation sketch



Technical data and requirements

Drive	Philips PH 2
Thread type	Double-pitch thread

Order information

Designation	Finish	Screw length	Screw diameter		PU	Article number
			BS	d		
GU roller shutter screw DC 4 x 9 **Profile:** Salamander	Galvanised/red	9 mm	9.5 mm	6.8 mm	1,000 pcs	E-12578-01-0-3
GU roller shutter screw DC 4 x 13 **Profile:** Aluplast, Deceunick, Inoutic, KBE, Rehau, Roplasto	Galvanised/white	13 mm	10.5 mm	7.4 mm	1,000 pcs	E-12578-02-0-3
GU roller shutter screw DC 4 x 12 **Profile:** Stöckel, Trocal	Galvanised/blue	12 mm	12 mm	8.4 mm	1,000 pcs	E-12578-03-0-3
GU roller shutter screw DC 4 x 10 **Profile:** Gealan, Kömmerling, Roplasto	Galvanised/green	10 mm	11 mm	8.6 mm	1,000 pcs	E-12578-04-0-3
GU roller shutter screw DC 4 x 12 **Profile:** Aluplast, Hocoplast	Galvanised/yellow	12 mm	11 mm	8.4 mm	1,000 pcs	E-12578-05-0-3
GU roller shutter screw DC 4 x 12 **Profile:** Veka	Galvanised/yellow	12 mm	9.5 mm	6.8 mm	1,000 pcs	E-12578-06-0-3

GU window handle screw

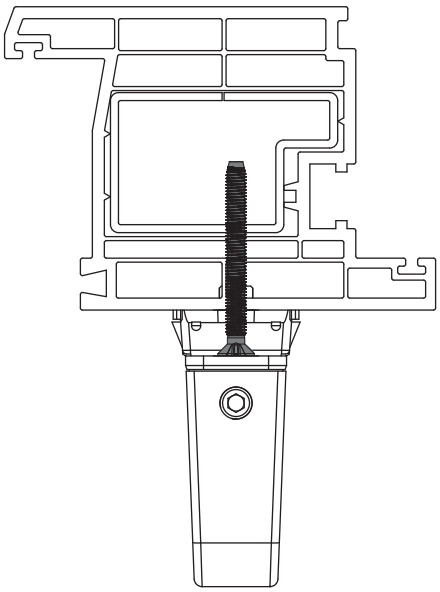
Product characteristics

- With locating tip
- Quality class 4.8

Applications

- Fastening of window handles

Installation sketch



Technical data and requirements

Head diameter	9.0 mm
Drive	Philips PH 2
Thread type	metric

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU window handle screw	**Galvanised finish, blue passivated**			
	35 mm	M5	1,000 pcs	H-00768-35-0-1
	40 mm	M5	1,000 pcs	H-00768-40-0-1
	45 mm	M5	1,000 pcs	H-00768-45-0-1
	50 mm	M5	1,000 pcs	H-00768-50-0-1

GU drill screw D6 for windows

for hardware installation

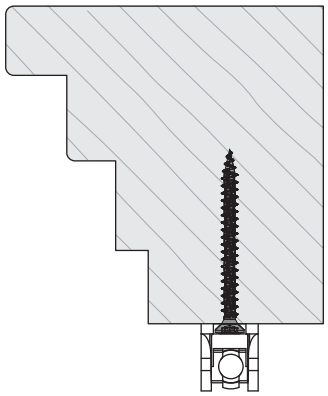
Product characteristics

- The special thread geometry and slide coating ensure low screwing-in torques and high overturning or release torques
- Perfectly formed cutting tip ensures an immediate grip in the timber
- Edge clearances and pre-drilling according to Eurocode 5 (formerly DIN 1052)
- Steel, case hardened

Applications

- Attachment of Tilt&Turn hardware in wood
- Fastening of closing parts, bearings and similar components

Installation sketch



Technical data and requirements	
Head diameter	7.0 mm
Thread type	Patented thread geometry
Tip	Cutting tip

GU drill screw D6 for windows

for hardware installation

Note

We recommend our stainless steel version for timber species rich in tannin (e.g. oak, beach, larch and impregnated timber). Also check compatibility when using in combination with timber preservatives or impregnated/treated timber. If in doubt, please use GU drill screws D6 for windows in stainless steel quality.

Recommended edge clearances according to Eurocode 5 (formerly DIN 1052)

Eurocode 5 "Sizing and construction of timber structures" sets out the edge clearances for screw connections in timber with or without pre-drilling. Pre-drilling with 3 mm diameter is recommended when drilling into hardwoods with a depth of greater than 25 mm.

Recommended edge clearances according to Eurocode 5

With pre-drilling	3 x screw diameter d
Without pre-drilling	5 x screw diameter d

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU drill screw D6 for windows	**ferGUard finish with Pozidrive PZ2 drive [1]**			
	25 mm	4 mm	1,000 pcs	H-00841-25-0-2
	30 mm	4 mm	1,000 pcs	H-00841-30-0-2
	35 mm	4 mm	1,000 pcs	H-00841-35-0-2
	40 mm	4 mm	1,000 pcs	H-00841-40-0-2
	45 mm	4 mm	1,000 pcs	H-00841-45-0-2
	50 mm	4 mm	1,000 pcs	H-00841-50-0-2
	Finish A2 stainless steel with TX20 drive			
	30 mm	4 mm	1,000 pcs	H-00841-30-0-8
	45 mm	4 mm	1,000 pcs	H-00841-45-0-8

[1] Also available with TX20 drive on request

GU hardware fixing screw A1

for fastening aluminium components

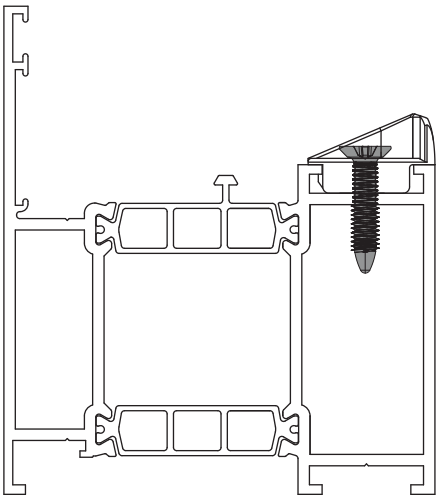
Product characteristics

- Stainless steel A4
- Sealing washer made of stainless steel
- Aluminium optimised thread geometry ensures high extraction resistance

Applications

- Screw channels made of aluminium
- Thin-walled aluminium components

Installation sketch



Technical data and requirements

Drive	TX20
Thread type	DG 40
Thread diameter	8 mm

Order information

Designation	Screw length	Screw diameter	Clamping thickness	Surface	PU	Article number
GU hardware fixing screw A1	**without sealing washer**					
	13 mm	4 mm	9 mm	Stainless steel A4	1,000 pcs	H-01357-13-0-8
	19 mm	4 mm	15 mm	Stainless steel A4	1,000 pcs	H-01357-19-0-8
	with sealing washer					
	13 mm	4 mm	7 mm	Stainless steel A4	1,000 pcs	H-01358-13-0-8
	19 mm	4 mm	13 mm	Stainless steel A4	1,000 pcs	H-01358-19-0-8

GU hardware fixing screw A2

for fastening aluminium components

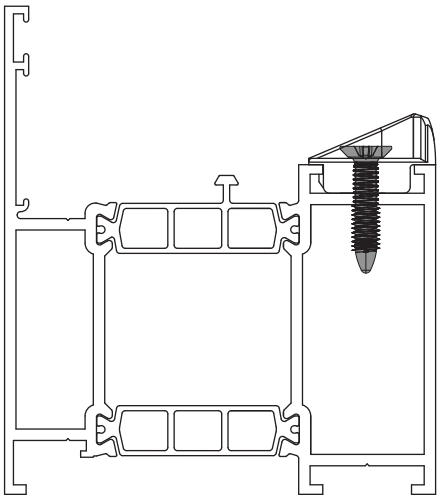
Product characteristics

- Stainless steel A2
- Aluminium optimised thread geometry ensures high extraction resistance

Applications

- Screw channels made of aluminium
- Thin-walled aluminium components

Installation sketch



Technical data and requirements

Drive	TX25
Thread type	DG 50
Thread diameter	10 mm

Order information

Designation	Screw length	Screw diameter	Clamping thickness	Surface	PU	Article number
GU hardware fixing screw A2	**without sealing washer**					
	15 mm	5 mm	9 mm	Stainless steel A2	1,000 pcs	H-01359-15-0-8
	20 mm	5 mm	14 mm	Stainless steel A2	1,000 pcs	H-01359-20-0-8
	25 mm	5 mm	19 mm	Stainless steel A2	1,000 pcs	H-01359-25-0-8

GU drill screw A3 for windows

for hardware installation

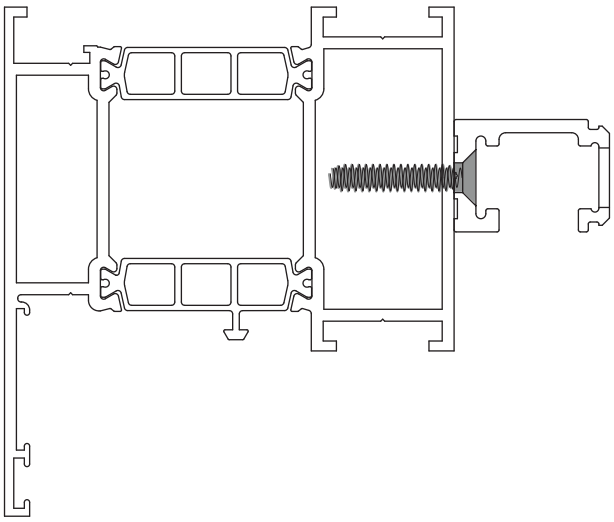
Product characteristics

- Stainless steel A2
- Aluminium optimised thread geometry ensures high tear-out resistance

Applications

- Screw connections for hardware in aluminium

Installation sketch



Technical data and requirements

Head diameter	7.5 mm
Drilling capacity	max. 2.5 mm
Drive	Philips PH 2
Thread type	DG 40

Order information

Designation	Screw length	Screw diameter	Clamping thickness	Surface	PU	Article number
GU drill screw A3 for windows	16 mm	4 mm	10 mm	Stainless steel A2	1,000 pcs	H-01360-16-0-8
	25 mm	4 mm	19 mm	Stainless steel A2	1,000 pcs	H-01360-25-0-8

GU drill screw A4 for windows

for fastening aluminium components

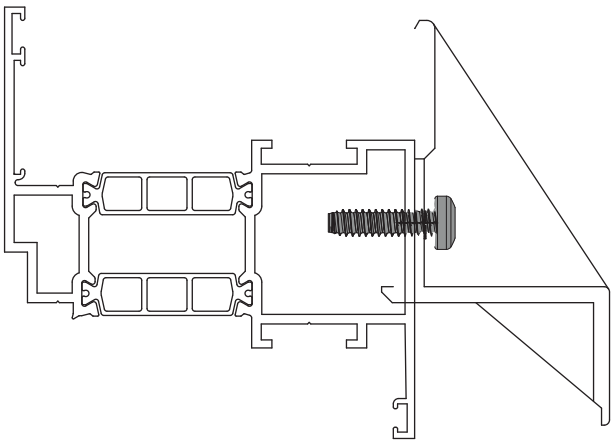
Product characteristics

- Stainless steel A2
- Aluminium optimised thread geometry ensures high extraction resistance

Applications

- Screwing T-connectors directly into mullion-transom constructions made of aluminium
- Fastening of additional profiles such as connecting profiles, transition profiles or similar

Installation sketch



Technical data and requirements

Head diameter	10 mm
Drilling capacity	max. 2.5 mm
Drive	TX25
Thread type	DG 50

Order information

Designation	Screw length	Screw diameter	Clamping thickness	Surface	PU	Article number
GU drill screw A4 for windows	16 mm	5 mm	8 mm	Stainless steel A2	1,000 pcs	H-01361-16-0-8

GU FDS screw

Flow-hole forming

Product characteristics

- A rim hole is formed in the metal by means of flow hole forming then 2 to 3 thread pitches are formed
- The subsequent shrinkage which accompanies cooling of the rim hole leads to a high release torque accompanied by high vibration resistance
- This produces a high-strength connection
- Made of stainless steel A2

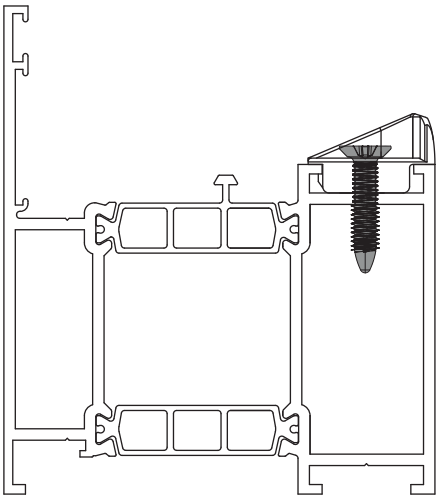
Applications

- Fastening in thin-walled sheet metals
- High-strength sheet metal connections e.g. roller units on sliding sashes, closing pieces in burglar-inhibiting windows

Processing

The maximum possible rim hole is produced when processing without pre-drilling using screw connection systems with a high speed and high axial pressure. A rim hole of roughly twice the material thickness is produced when processing with a reduced pre-drilling diameter.

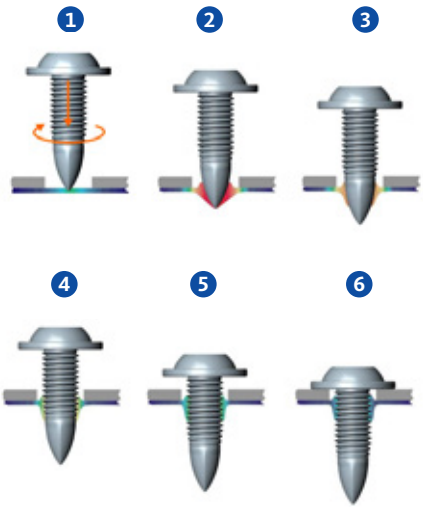
Installation sketch



Technical data and requirements	
Thread type	metric

GU FDS screw

Flow-hole forming



Phases of the FDS screw connection process

1. Heating of the sheet metal by applying pressing force at high rpm
2. Penetration of the material by the conical screw tip
3. Forming of the cylindrical rim hole
4. Rolling of a metric true to gauge size nut thread without cutting
5. Screwing through
6. Tightening of screw to set torque

Order information

Designation	Screw length	Screw head	Drive	Surface	PU	Article number
GU FDS screws	20 mm	Countersunk head Ø 8.2 mm	PH2	Stainless steel A2	1,000 pcs	H-01362-00-0-8
	20 mm	Countersunk head Ø 9.3 mm	TX25	Stainless steel A2	1,000 pcs	H-01362-01-0-8
	25 mm	Countersunk head Ø 9.2 mm	PZ2	Stainless steel A2	1,000 pcs	H-01362-02-0-8

GU mounting screw BE5

Product characteristics

- Drilling and fastening in one work step
- Reliable and straightforward installation
- High pull-out and tensile fracture values
- Steel, case hardened

Applications

- Window fabrication and installation
- Fastening all angle brackets and mounting brackets
- Fastening of additional profiles

Processing

- With customary appliances

Technical data and requirements

Head diameter	12 mm
Drive	Hexalobular internal T30
Thread type	ST, 60 ° thread angle
Thread diameter	6.3 mm
Height of head	4.6 mm
Drilling capacity	max. 6 mm
Ultimate moment	> 16 Nm
Tensile fracture stress	17 kN

GU mounting screw BE5

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU mounting screw BE5	**Galvanised finish, blue passivated**			
	16 mm	6.3 mm	500 pcs	H-01844-16-0-1
	25 mm	6.3 mm	500 pcs	H-01844-25-0-1
	32 mm	6.3 mm	500 pcs	H-01844-32-0-1
	38 mm	6.3 mm	500 pcs	H-01844-38-0-1
	45 mm	6.3 mm	500 pcs	H-01844-45-0-1
	50 mm	6.3 mm	250 pcs	H-01844-50-0-1
	60 mm	6.3 mm	250 pcs	H-01844-60-0-1
	80 mm	6.3 mm	250 pcs	H-01844-80-0-1
	100 mm	6.3 mm	100 pcs	H-01844-10-0-1

GU coupling drilling screw BE3

Product characteristics

- Easy to handle as the frame to be coupled is pre-drilled
- The drill bit ensures optimum drilling capacity in reinforcement steel up to 2 mm
- Steel, case hardened
- Climadur coated – high-quality coating to improve corrosion protection (Kesternich test comprising 15 cycles, DIN 50018, 1997)

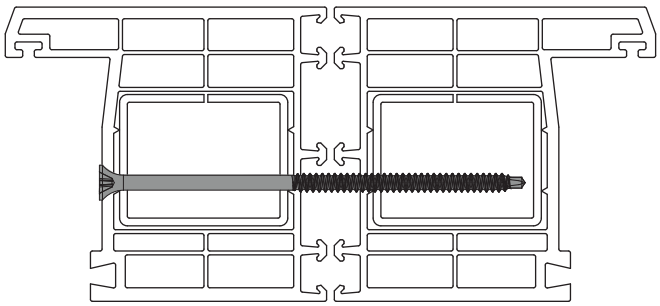
Applications

- For coupling of profiles with window hinges, window/balcony-door combinations or similar made of PVC and wood-based materials
- Also suitable for doubling up of frames

Processing

- Pre-drilling with 4 mm

Installation sketch



Technical data and requirements	
Head diameter	9 mm
Drive	Philips PH 2
Thread type	Special thread

GU coupling drilling screw BE3

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU coupling drilling screw BE3	**Climadur finish**			
	35 mm	4.8 mm	500 pcs	H-01841-03-0-1
	50 mm	4.8 mm	500 pcs	H-01841-05-0-1
	60 mm	4.8 mm	500 pcs	H-01841-06-0-1
	70 mm	4.8 mm	500 pcs	H-01841-07-0-1
	80 mm	4.8 mm	250 pcs	H-01841-08-0-1
	90 mm	4.8 mm	250 pcs	H-01841-09-0-1
	100 mm	4.8 mm	250 pcs	H-01841-10-0-1
	110 mm	4.8 mm	250 pcs	H-01841-11-0-1
	120 mm	4.8 mm	250 pcs	H-01841-12-0-1
	140 mm	4.8 mm	250 pcs	H-01841-14-0-1
	160 mm	4.8 mm	100 pcs	H-01841-16-0-1
	180 mm	4.8 mm	100 pcs	H-01841-18-0-1
	200 mm	4.8 mm	100 pcs	H-01841-20-0-1
	220 mm	4.8 mm	100 pcs	H-01841-22-0-1
	240 mm	4.8 mm	100 pcs	H-01841-24-0-1
	260 mm	4.8 mm	100 pcs	H-01841-26-0-1
	280 mm	4.8 mm	100 pcs	H-01841-28-0-1
	300 mm	4.8 mm	100 pcs	H-01841-30-0-1

GU mounting screw BE1

for fastening PVC windows in masonry, concrete and in the GU frame for projecting installation

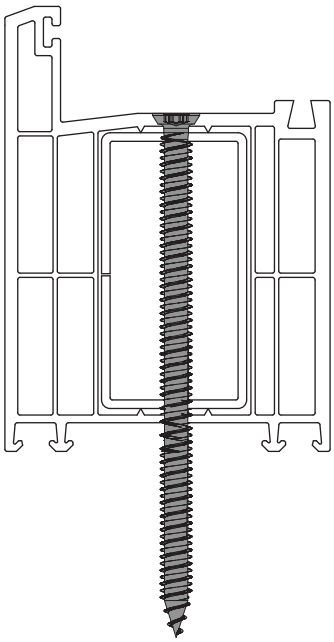
Product characteristics

- Burglar-inhibiting (RC2), tested in steel-free PVC windows
- Tested as fastening materials according to ETB directive "Components that safeguard against falling"
- Optimum force transmission and guidance via TX load application
- Reduced moulding moments and precise fit due to perfect thread geometry
- High installation performance, secure anchorage
- Including white cover caps RAL 9010
- Steel, case hardened

Applications

- Self-tapping direct fastening of PVC windows in masonry and concrete
- Efficient offset mounting of windows and doors
- Installation in accordance with guidelines of RAL Gütegemeinschaft Fenster und Haustüren (Quality Assurance Association for Windows and Doors)

Installation sketch



Processing

- Drill Ø 6.2 mm holes in frame at factory or on-site, distances according to RAL quality regulations
- Carefully align frame in masonry opening
- Drill Ø 6 mm masonry holes, drill hole depth = engagement depth +10 mm
- Fastening with GU mounting screws using customary equipment
- Push open cap if required

Technical data and requirements

Head diameter	11 mm
Drive	TX30
Material type	**Pre-drill diameter**
Hardwood	6 mm
Aerated concrete/hollow bricks	5 mm (without rebate)
Minimum engagement depth	
Concrete	30 mm
Lime sandstone, solid brick	40 mm
Vertical coring bricks, lightweight concrete, pumice concrete, aerated concrete	60 mm
Softwood	60 mm
Hardwood	40 mm

GU mounting screw BE1

for fastening PVC windows in masonry, concrete and in the GU frame for projecting installation

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU mounting screw BE1	**Galvanised finish, blue passivated**			
	40 mm	7.5 mm	100 pcs	E-15303-04-0-1
	60 mm	7.5 mm	100 pcs	E-15303-06-0-1
	80 mm	7.5 mm	100 pcs	E-15303-08-0-1
	100 mm	7.5 mm	100 pcs	E-15303-10-0-1
	120 mm	7.5 mm	100 pcs	E-15303-12-0-1
	132 mm	7.5 mm	100 pcs	E-15303-13-0-1
	150 mm	7.5 mm	100 pcs	E-15303-15-0-1
	180 mm	7.5 mm	100 pcs	E-15303-18-0-1
	210 mm	7.5 mm	100 pcs	E-15303-21-0-1
	250 mm	7.5 mm	100 pcs	E-15303-25-0-1
	300 mm	7.5 mm	100 pcs	E-15303-30-0-1

Note

Please note the special installation instructions when installing burglar-inhibiting or fall protection building elements!

Edge clearances

The manufacturer's instructions in relation to edge clearances must be observed.

Test for RC 2 approval in accordance with EN 1627

EPH SUCCESS BY QUALITY

K U R Z B E R I C H T

EH-17-06-15-01

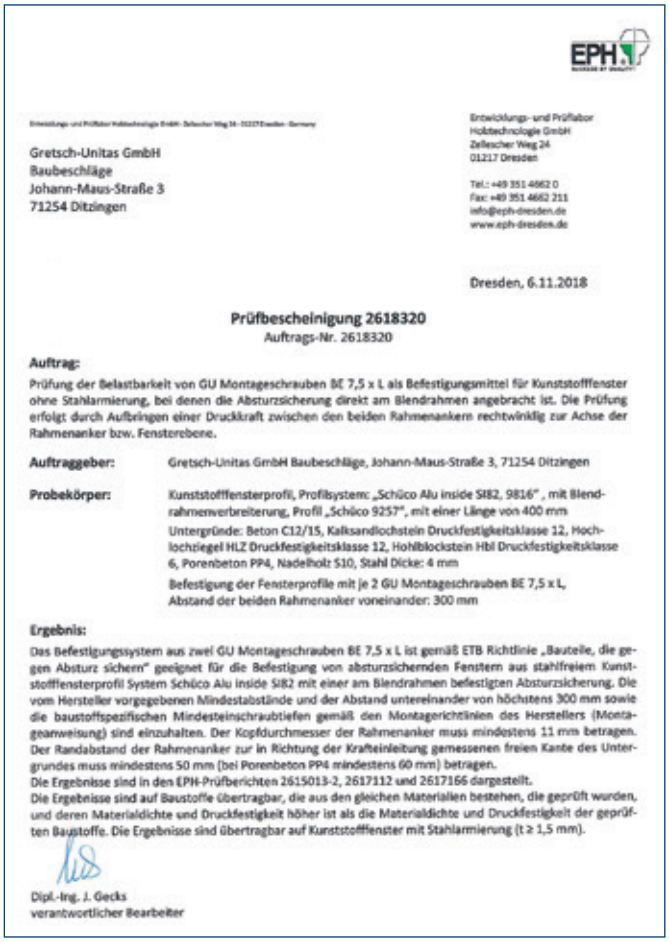
Vertriebsgesellschaft:	**Gretsch-Unitas GmbH** Johann-Maus-Straße 3, 71254 Ditzingen
Auftrag:	Prüfung eines einflügeligen Kunststofffensters (Drehkipp) auf Einbruchhemmung nach DIN EN 1627ff (2011-09), Widerstandsklasse RC2, Prüfung und Bewertung der Montagevariante
Auftrag vom:	12.06.2017
Auftragsnummer:	2617168
Prüfgegenstand:	Kunststofffenster, einflügelig (Drehkipp), Flügel innenöffnend
Prüfergebnis:	Die Kunststofffenster einschließlich Montageausführung mit „GU-Montageschraube BE" entsprechen den Anforderungen der Widerstandsklasse RC2 (RC2 N) gemäß DIN EN 1627.
Datum der Prüfungen:	20.08.2014
Ausstellungsdatum:	15.06.2017

Dipl.- Ing. J. Gecks
Leiter Laborbereich
Werkstoff- und Produktprüfung

Der Kurzbericht enthält 2 Seiten, 1 Anlage. Eine auszugsweise Vervielfältigung ist nicht statthaft. Die Prüfergebnisse beziehen sich ausschließlich auf die geprüften Fensterelemente.

Mit Veränderungen der Prüfgrundlagen oder Änderungen an den geprüften Bauteilen, welche außerhalb der laut Prüfbericht zulässigen Übertragbarkeit von Prüfergebnissen liegen, verlieren Prüf- und Kurzbericht ihre Anwendbarkeit.

Test for fall protection



EPH

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

Entwicklungs- und Prüflabor
Holztechnologie GmbH
Zellescher Weg 24
01217 Dresden

Tel.: +49 351 4662 0
Fax: +49 351 4662 211
info@eph-dresden.de
www.eph-dresden.de

Dresden, 6.11.2018

Prüfbescheinigung 2618320
Auftrags-Nr. 2618320

Auftrag:
Prüfung der Belastbarkeit von GU Montageschrauben BE 7,5 x L als Befestigungsmittel für Kunststofffenster ohne Stahlarmierung, bei denen die Absturzsicherung direkt am Blendrahmen angebracht ist. Die Prüfung erfolgt durch Aufbringen einer Druckkraft zwischen den beiden Rahmenankern rechtwinklig zur Achse der Rahmenanker bzw. Fensterebene.

Auftraggeber: Gretsch-Unitas GmbH Baubeschläge, Johann-Maus-Straße 3, 71254 Ditzingen

Probekörper: Kunststofffensterprofil, Profilsystem: „Schüco Alu inside SI82, 9816" , mit Blendrahmenverbreiterung, Profil „Schüco 9257", mit einer Länge von 400 mm
Untergründe: Beton C12/15, Kalksandlochstein Druckfestigkeitsklasse 12, Hochlochziegel HLZ Druckfestigkeitsklasse 12, Hohlblockstein Hbl Druckfestigkeitsklasse 6, Porenbeton PP4, Nadelholz S10, Stahl Dicke: 4 mm
Befestigung der Fensterprofile mit je 2 GU Montageschrauben BE 7,5 x L, Abstand der beiden Rahmenanker voneinander: 300 mm

Ergebnis:
Das Befestigungssystem aus zwei GU Montageschrauben BE 7,5 x L ist gemäß ETB Richtlinie „Bauteile, die gegen Absturz sichern" geeignet für die Befestigung von absturzsichernden Fenstern aus stahlfreiem Kunststofffensterprofil System Schüco Alu inside SI82 mit einer am Blendrahmen befestigten Absturzsicherung. Die vom Hersteller vorgegebenen Mindestabstände und der Abstand untereinander von höchstens 300 mm sowie die baustoffspezifischen Mindesteinschraubtiefen gemäß den Montagerichtlinien des Herstellers (Montageanweisung) sind einzuhalten. Der Kopfdurchmesser der Rahmenanker muss mindestens 11 mm betragen. Der Randabstand der Rahmenanker zur in Richtung der Krafteinleitung gemessenen freien Kante des Untergrundes muss mindestens 50 mm (bei Porenbeton PP4 mindestens 60 mm) betragen.
Die Ergebnisse sind in den EPH-Prüfberichten 2615013-2, 2617112 und 2617166 dargestellt.
Die Ergebnisse sind auf Baustoffe übertragbar, die aus den gleichen Materialien bestehen, die geprüft wurden, und deren Materialdichte und Druckfestigkeit höher ist als die Materialdichte und Druckfestigkeit der geprüften Baustoffe. Die Ergebnisse sind übertragbar auf Kunststofffenster mit Stahlarmierung (t ≥ 1,5 mm).

Dipl.-Ing. J. Gecks
verantwortlicher Bearbeiter

GU mounting screw BE2

for fastening timber and timber/aluminium windows in masonry, concrete and in the GU frame for projecting installation

Product characteristics

- Burglar-inhibiting (RC2), tested in steel-free PVC windows
- Optimum force transmission and guidance via TX load application
- Reduced moulding moments and precise fit due to perfect thread geometry
- High installation performance, secure anchorage
- Slender head is drawn directly into the timber frame
- Steel, case hardened

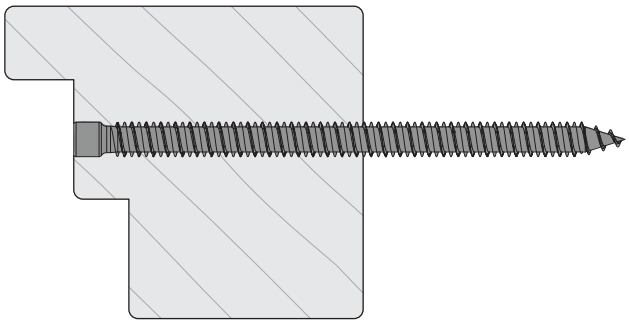
Applications

- Self-tapping direct fastening of timber and timber/aluminium windows in masonry and concrete
- Efficient offset mounting of windows and doors
- Installation in accordance with guidelines of RAL Gütegemeinschaft Fenster und Haustüren (Quality Assurance Association for Windows and Doors)

Processing

- Drill Ø 6.2 mm holes in frame at factory or on-site, distances according to RAL quality regulations
- Carefully align frame in masonry opening
- Drill Ø 6 mm masonry holes, drill hole depth = engagement depth +10 mm
- Fastening with GU mounting screws using customary equipment

Installation sketch



Technical data and requirements	
Head diameter	7.5 mm
Drive	TX25
Material type	**Pre-drill diameter**
Hardwood	6 mm
Aerated concrete/hollow bricks	5 mm (without rebate)
Minimum engagement depth	
Concrete	30 mm
Lime sandstone, solid brick	40 mm
Vertical coring bricks, lightweight concrete, pumice concrete, aerated concrete	60 mm
Softwood	60 mm
Hardwood	40 mm

GU mounting screw BE2

for fastening timber and timber/aluminium windows in masonry, concrete and in the GU frame for projecting installation

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU mounting screw BE2	**Galvanised finish, blue passivated**			
	60 mm	7.5 mm	100 pcs	E-18118-06-0-1
	80 mm	7.5 mm	100 pcs	E-18118-08-0-1
	100 mm	7.5 mm	100 pcs	E-18118-10-0-1
	120 mm	7.5 mm	100 pcs	E-18118-12-0-1
	135 mm	7.5 mm	100 pcs	H-00118-13-0-1
	150 mm	7.5 mm	100 pcs	E-18118-15-0-1
	180 mm	7.5 mm	100 pcs	E-18118-18-0-1

Note

Please note the special installation instructions when installing burglar-inhibiting or fall protection building elements!

Edge clearances

The manufacturer's instructions in relation to edge clearances must be observed.

Test for RC 2 approval in accordance with EN 1627

EPH
SUCCESS BY QUALITY

DAkkS

KURZBERICHT

EH-17-06-15-01

Vertriebsgesellschaft:	**Gretsch-Unitas GmbH** Johann-Maus-Straße 3, 71254 Ditzingen
Auftrag:	Prüfung eines einflügeligen Kunststofffensters (Drehkipp) auf Einbruchhemmung nach DIN EN 1627ff (2011-09), Widerstandsklasse RC2, Prüfung und Bewertung der Montagevariante
Auftrag vom:	12.06.2017
Auftragsnummer:	2617168
Prüfgegenstand:	Kunststofffenster, einflügelig (Drehkipp), Flügel innenöffnend
Prüfergebnis:	Die Kunststofffenster einschließlich Montageausführung mit „GU-Montageschraube BE" entsprechen den Anforderungen der Widerstandsklasse RC2 (RC2 N) gemäß DIN EN 1627.
Datum der Prüfungen:	20.08.2014
Ausstellungsdatum:	15.06.2017

Dipl.- Ing. J. Gecks
Leiter Laborbereich
Werkstoff- und Produktprüfung

Der Kurzbericht enthält 2 Seiten, 1 Anlage. Eine auszugsweise Vervielfältigung ist nicht statthaft. Die Prüfergebnisse beziehen sich ausschließlich auf die geprüften Fensterelemente.

Mit Veränderungen der Prüfgrundlagen oder Änderungen an den geprüften Bauteilen, welche außerhalb der laut Prüfbericht zulässigen Übertragbarkeit von Prüfergebnissen liegen, verlieren Prüf- und Kurzbericht ihre Anwendbarkeit.

GU mounting screw BE4

for fastening PVC and timber windows in masonry, concrete and in the GU frame for projecting installation

Product characteristics

- Burglar-inhibiting (RC2), tested in steel-free PVC windows
- Tested as fastening materials according to ETB directive "Components that safeguard against falling"
- Optimum force transmission and guidance via TX load application
- Reduced moulding moments and precise fit due to perfect thread geometry
- High installation performance, secure anchorage
- Steel, case hardened

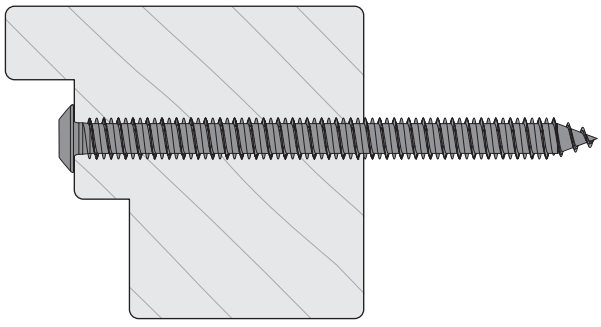
Applications

- Self-tapping direct fastening of PVC and timber windows in masonry and concrete
- Efficient offset mounting of windows and doors
- Installation in accordance with guidelines of RAL Gütegemeinschaft Fenster und Haustüren (Quality Assurance Association for Windows and Doors)

Processing

- Drill Ø 6.2 mm holes in frame at factory or on-site, distances according to RAL quality regulations
- Carefully align frame in masonry opening
- Drill Ø 6 mm masonry holes, drill hole depth = engagement depth +10 mm
- Fastening with GU mounting screws using customary equipment

Installation sketch



Technical data and requirements

Head diameter	12 mm
Drive	TX30
Material type	**Pre-drill diameter**
Concrete, lime sandstone, solid brick	6 mm
Lime sand ventilating bricks, hollow blocks, timber	6 mm
Hardwood	6 mm
Aerated concrete/hollow bricks	5 mm (without rebate)
Minimum engagement depth	
Concrete	30 mm
Lime sandstone, solid brick	40 mm
Vertical coring bricks, lightweight concrete, pumice concrete, aerated concrete	60 mm
Softwood	60 mm
Hardwood	40 mm

GU mounting screw BE4

for fastening PVC and timber windows in masonry, concrete and in the GU frame for projecting installation

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU mounting screw BE4	**Galvanised finish, blue passivated**			
	120 mm	7.5 mm	100 pcs	H-01880-12-0-1
	150 mm	7.5 mm	100 pcs	H-01880-15-0-1
	180 mm	7.5 mm	100 pcs	H-01880-18-0-1
	210 mm	7.5 mm	100 pcs	H-01880-21-0-1
	250 mm	7.5 mm	50 pcs	H-01880-25-0-1
	300 mm	7.5 mm	50 pcs	H-01880-30-0-1

Note

Please note the special installation instructions when installing burglar-inhibiting or fall protection building elements!

Edge clearances

The manufacturer's instructions in relation to edge clearances must be observed.

Test RC 2

EPH SUCCESS BY QUALITY

DAkkS

KURZBERICHT

EH-17-06-15-01

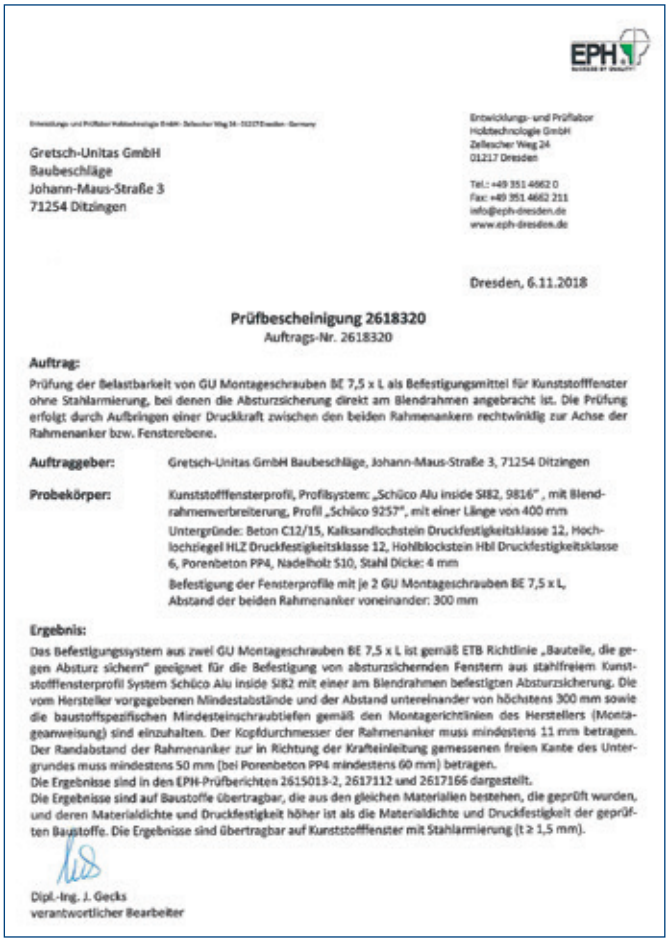
Vertriebsgesellschaft:	**Gretsch-Unitas GmbH** Johann-Maus-Straße 3, 71254 Ditzingen
Auftrag:	Prüfung eines einflügeligen Kunststofffensters (Drehkipp) auf Einbruchhemmung nach DIN EN 1627ff (2011-09), Widerstandsklasse RC2, Prüfung und Bewertung der Montagevariante
Auftrag vom:	12.06.2017
Auftragsnummer:	2617168
Prüfgegenstand:	Kunststofffenster, einflügelig (Drehkipp), Flügel innenöffnend
Prüfergebnis:	Die Kunststofffenster einschließlich Montageausführung mit „GU-Montageschraube BE" entsprechen den Anforderungen der Widerstandsklasse RC2 (RC2 N) gemäß DIN EN 1627.
Datum der Prüfungen:	20.08.2014
Ausstellungsdatum:	15.06.2017

Dipl.- Ing. J. Gecks
Leiter Laborbereich
Werkstoff- und Produktprüfung

Der Kurzbericht enthält 2 Seiten, 1 Anlage. Eine auszugsweise Vervielfältigung ist nicht statthaft. Die Prüfergebnisse beziehen sich ausschließlich auf die geprüften Fensterelemente.

Mit Veränderungen der Prüfgrundlagen oder Änderungen an den geprüften Bauteilen, welche außerhalb der laut Prüfbericht zulässigen Übertragbarkeit von Prüfergebnissen liegen, verlieren Prüf- und Kurzbericht ihre Anwendbarkeit.

Test for fall protection



EPH

Entwicklungs- und Prüflabor Holztechnologie GmbH
Zellescher Weg 24
01217 Dresden

Tel.: +49 351 4662 0
Fax: +49 351 4662 211
info@eph-dresden.de
www.eph-dresden.de

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen

Dresden, 6.11.2018

Prüfbescheinigung 2618320
Auftrags-Nr. 2618320

Auftrag:
Prüfung der Belastbarkeit von GU Montageschrauben BE 7,5 x L als Befestigungsmittel für Kunststofffenster ohne Stahlarmierung, bei denen die Absturzsicherung direkt am Blendrahmen angebracht ist. Die Prüfung erfolgt durch Aufbringen einer Druckkraft zwischen den beiden Rahmenankern rechtwinklig zur Achse der Rahmenanker bzw. Fensterebene.

Auftraggeber: Gretsch-Unitas GmbH Baubeschläge, Johann-Maus-Straße 3, 71254 Ditzingen

Probekörper: Kunststofffensterprofil, Profilsystem: „Schüco Alu inside SI82, 9816" , mit Blendrahmenverbreiterung, Profil „Schüco 9257", mit einer Länge von 400 mm
Untergründe: Beton C12/15, Kalksandlochstein Druckfestigkeitsklasse 12, Hochlochziegel HLZ Druckfestigkeitsklasse 12, Hohlblockstein Hbl Druckfestigkeitsklasse 6, Porenbeton PP4, Nadelholz S10, Stahl Dicke: 4 mm
Befestigung der Fensterprofile mit je 2 GU Montageschrauben BE 7,5 x L, Abstand der beiden Rahmenanker voneinander: 300 mm

Ergebnis:
Das Befestigungssystem aus zwei GU Montageschrauben BE 7,5 x L ist gemäß ETB Richtlinie „Bauteile, die gegen Absturz sichern" geeignet für die Befestigung von absturzsichernden Fenstern aus stahlfreiem Kunststofffensterprofil System Schüco Alu inside SI82 mit einer am Blendrahmen befestigten Absturzsicherung. Die vom Hersteller vorgegebenen Mindestabstände und der Abstand untereinander von höchstens 300 mm sowie die baustoffspezifischen Mindesteinschraubtiefen gemäß den Montagerichtlinien des Herstellers (Montageanweisung) sind einzuhalten. Der Kopfdurchmesser der Rahmenanker muss mindestens 11 mm betragen. Der Randabstand der Rahmenanker zur in Richtung der Krafteinleitung gemessenen freien Kante des Untergrundes muss mindestens 50 mm (bei Porenbeton PP4 mindestens 60 mm) betragen.
Die Ergebnisse sind in den EPH-Prüfberichten 2615013-2, 2617112 und 2617166 dargestellt.
Die Ergebnisse sind auf Baustoffe übertragbar, die aus den gleichen Materialien bestehen, die geprüft wurden, und deren Materialdichte und Druckfestigkeit höher ist als die Materialdichte und Druckfestigkeit der geprüften Baustoffe. Die Ergebnisse sind übertragbar auf Kunststofffenster mit Stahlarmierung (t ≥ 1,5 mm).

Dipl.-Ing. J. Gecks
verantwortlicher Bearbeiter

GU universal screw BE6

Product characteristics

- There is a double angle underneath the screw head which ensures reliable processing, an outstanding blade seat and an optimum interference fit
- Milled pockets make it possible to create a perfect countersink with a neat surface closure

Applications

- Can be used universally for hardwood, particle board, plastics and other materials

Processing

- The patented thread characteristic with surface-ground ensures that the GU universal screw BE6 can be processed without cracking of material, even with small edge clearances

Dimensions

Thread diameter	Head diameter	Height of head	Torx
3 mm	6 mm	1.8 mm	I-10
3.5 mm	7 mm	2.1 mm	I-15
4 mm	8 mm	2.4 mm	I-20
4.5 mm	9 mm	2.7 mm	I-20
5 mm	10 mm	2.9 mm	I-20
6 mm	12 mm	3.4 mm	I-30

GU universal screw BE6

Order information

Designation	Screw length	Thread diameter	PU	Article number
GU universal screw BE6	**Surface galvanised with full thread**			
	16 mm	3 mm	1,000 pcs	H-01847-16-0-1
	20 mm	3 mm	1,000 pcs	H-01847-20-0-1
	25 mm	3 mm	1,000 pcs	H-01847-25-0-1
	30 mm	3 mm	1,000 pcs	H-01847-30-0-1
	16 mm	3.5 mm	1,000 pcs	H-01850-16-0-1
	20 mm	3.5 mm	1,000 pcs	H-01850-20-0-1
	25 mm	3.5 mm	1,000 pcs	H-01850-25-0-1
	30 mm	3.5 mm	1,000 pcs	H-01850-30-0-1
	35 mm	3.5 mm	1,000 pcs	H-01850-35-0-1
	40 mm	3.5 mm	1,000 pcs	H-01850-40-0-1
	20 mm	4 mm	1,000 pcs	H-01851-20-0-1
	25 mm	4 mm	1,000 pcs	H-01851-25-0-1
	30 mm	4 mm	1,000 pcs	H-01851-30-0-1
	35 mm	4 mm	1,000 pcs	H-01851-35-0-1
	40 mm	4 mm	1,000 pcs	H-01851-40-0-1
	20 mm	4.5 mm	1,000 pcs	H-01852-20-0-1
	25 mm	4.5 mm	1,000 pcs	H-01852-25-0-1
	35 mm	4.5 mm	500 pcs	H-01852-35-0-1
	40 mm	4.5 mm	500 pcs	H-01852-40-0-1
	50 mm	4.5 mm	500 pcs	H-01852-50-0-1
	60 mm	5 mm	500 pcs	H-01853-60-0-1
	70 mm	5 mm	200 pcs	H-01853-70-0-1
	80 mm	5 mm	200 pcs	H-01853-80-0-1
	50 mm	6 mm	200 pcs	H-01854-50-0-1
	60 mm	6 mm	200 pcs	H-01854-60-0-1
	70 mm	6 mm	200 pcs	H-01854-70-0-1
	80 mm	6 mm	200 pcs	H-01854-80-0-1
	Surface galvanised with part thread			
	30 mm	3 mm	1,000 pcs	H-01847-30-T-1
	35 mm	3 mm	1,000 pcs	H-01847-35-T-1
	30 mm	3.5 mm	1,000 pcs	H-01850-30-T-1
	40 mm	3.5 mm	1,000 pcs	H-01850-40-T-1
	35 mm	4 mm	1,000 pcs	H-01851-35-T-1
	40 mm	4 mm	1,000 pcs	H-01851-40-T-1
	50 mm	4 mm	500 pcs	H-01851-50-T-1
	35 mm	4.5 mm	500 pcs	H-01852-35-T-1
	40 mm	4.5 mm	500 pcs	H-01852-40-T-1
	50 mm	4.5 mm	500 pcs	H-01852-50-T-1
	50 mm	5 mm	500 pcs	H-01853-50-T-1
	60 mm	5 mm	500 pcs	H-01853-60-T-1
	70 mm	5 mm	200 pcs	H-01853-70-T-1
	80 mm	5 mm	200 pcs	H-01853-80-T-1
	80 mm	6 mm	200 pcs	H-01854-80-T-1
	90 mm	6 mm	200 pcs	H-01854-90-T-1
	100 mm	6 mm	100 pcs	H-01854-10-T-1
	110 mm	6 mm	100 pcs	H-01854-11-T-1
	120 mm	6 mm	100 pcs	H-01854-12-T-1

GU anchor for projecting installation

for fastening the GU frame for projecting installation in masonry and concrete

Product characteristics

- Approved for all common building materials
- Reliable hold in problem building materials thanks to optimised expansion part
- Secure fit thanks to radial expansion
- Cr (VI)-free surface of the dowel screw
- Product identification due to varying pigmentation of dowel sleeve
- Twice the anti-twist protection for a secure installation

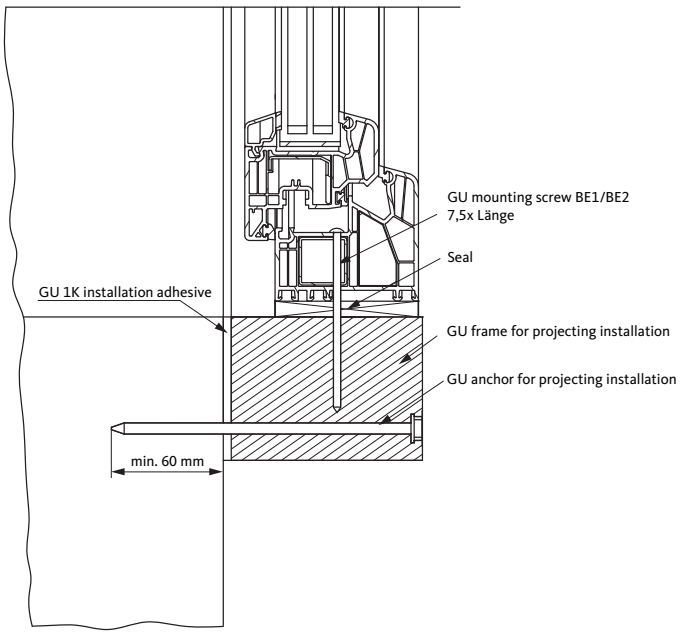
Applications

- Anchorage of mounting parts made of metal
- For non-load-bearing redundant systems according to ETAG 020
- Suitable for structural fastening of wall cupboards, cladding and metal brackets
- For anchorage in weather layers

Base materials

Approved for: concrete, solid bricks, lime sand solid bricks, lightweight concrete solid bricks, vertical coring bricks, vertical coring lightweight bricks, lime sand ventilating bricks, lightweight concrete hollow blocks, porous lightweight concrete

Fastening the GU frame for projecting installation to the masonry



GU anchor for projecting installation

for fastening the GU frame for projecting installation in masonry and concrete

Order information

Designation	Screw length	Screw diameter	PU	Article number
GU anchor for projecting installation	100 mm	10 mm	100 pcs	H-01624-10-0-1
	120 mm	10 mm	100 pcs	H-01624-12-0-1
	140 mm	10 mm	100 pcs	H-01624-14-0-1
	160 mm	10 mm	100 pcs	H-01624-16-0-1
	180 mm	10 mm	100 pcs	H-01624-18-0-1
	220 mm	10 mm	100 pcs	H-01624-22-0-1
	240 mm	10 mm	100 pcs	H-01624-24-0-1
	260 mm	10 mm	100 pcs	H-01624-26-0-1

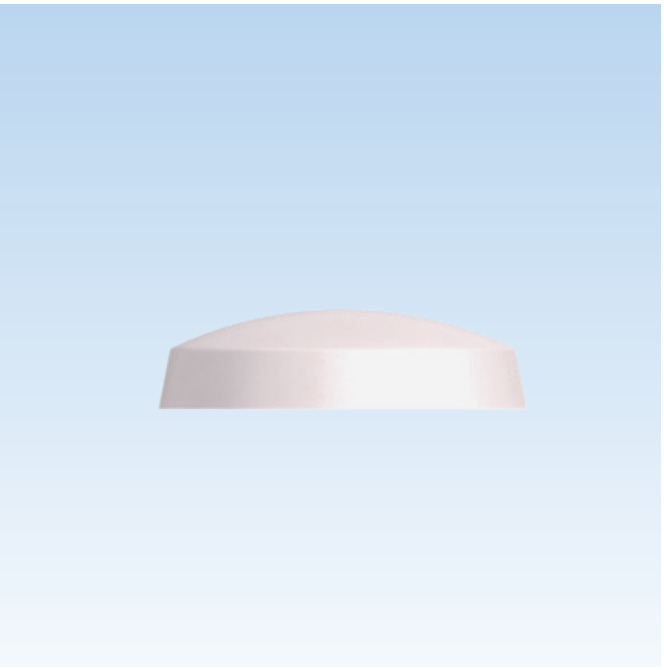
Note

Please observe the European Technical Approval ETA-10/0305 when planning and processing the products. For details on characteristic values and loads, please refer to the approval.

Technical data and requirements

Characteristic values	
Borehole depth in concrete $h_{1.1}$	≥ 80 mm
Effective anchor depth h_{nom}	≥ 70 mm
Borehole diameter d_0	10 mm
Drive	SW13/T40
Characteristic loads	
Tensile loads $N_{Rk,p}$	
Temperature range 30 °C/50 °C	4.50 kN
Temperature range 50 °C/80 °C	4.00 kN
Building bricks Mz 20-1.8, NF	4.00 kN
Lime sand solid bricks KS 36, NF	4.50 kN
Lime sand solid bricks KS 20, 8 DF	4.50 kN
Lightweight concrete solid bricks, V6, 2 DF	2.00 kN
Porous lightweight concrete	2.00 kN
Vertical coring bricks HLz 12-0.9, NF	2.00 kN
Lime sand ventilating bricks KSL 12, 4 DF	2.50 kN
Lightweight concrete hollow block Hbl 10, 12 DF	1.20 kN
Lateral loads $V_{Rk,s}$	
Dowel with steel screw	9.35 kN
Dowel with stainless steel screws A4	10.91 kN
Bending moment $M_{Rk,s}$	
Dowel with steel screw	17.67 Nm
Dowel with stainless steel screws A4	20.62 Nm

GU cover cap BE1

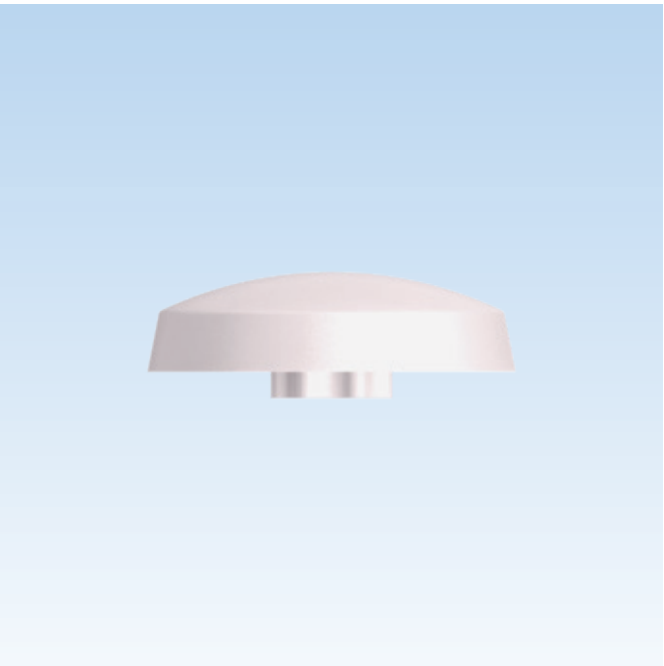


- Cover cap Ø 14.5 mm
- For screw type BE 1

Order information

Designation	Surface	PU	Article number
GU cover cap BE1	Brown (RAL 8011)	100 pcs	H-01842-00-0-5
	Black (RAL 9011)	100 pcs	H-01842-00-0-6
	White (RAL 9010)	100 pcs	H-01842-00-0-7

GU cover cap BE1 with pin



- Cover cap Ø 14.5 mm with pin
- For screw type BE 1

Order information

Designation	Surface	PU	Article number
GU cover cap BE1 with pin	Brown (RAL 8011)	100 pcs	E-15681-00-0-5
	Black (RAL 9011)	100 pcs	E-15681-00-0-6
	White (RAL 9010)	100 pcs	E-15681-00-0-7

Processing information

GU supporting consoles and GU retaining angles

The GU supporting consoles on the left and right and, where appropriate, the GU supporting console at the centre are aligned and fixed to the masonry in advance. The window or balcony-door frame is next, which is already prepared with the interior window sealing sheet. In addition to the GU supporting consoles, it is fixed to the GU retaining angles on the masonry. The oblong holes in the supporting consoles and retaining angles allow for quick and easy adjustment to the masonry. The GU retaining angles are critical for optimum installation of the component, because they absorb dead loads, live loads and wind loads.

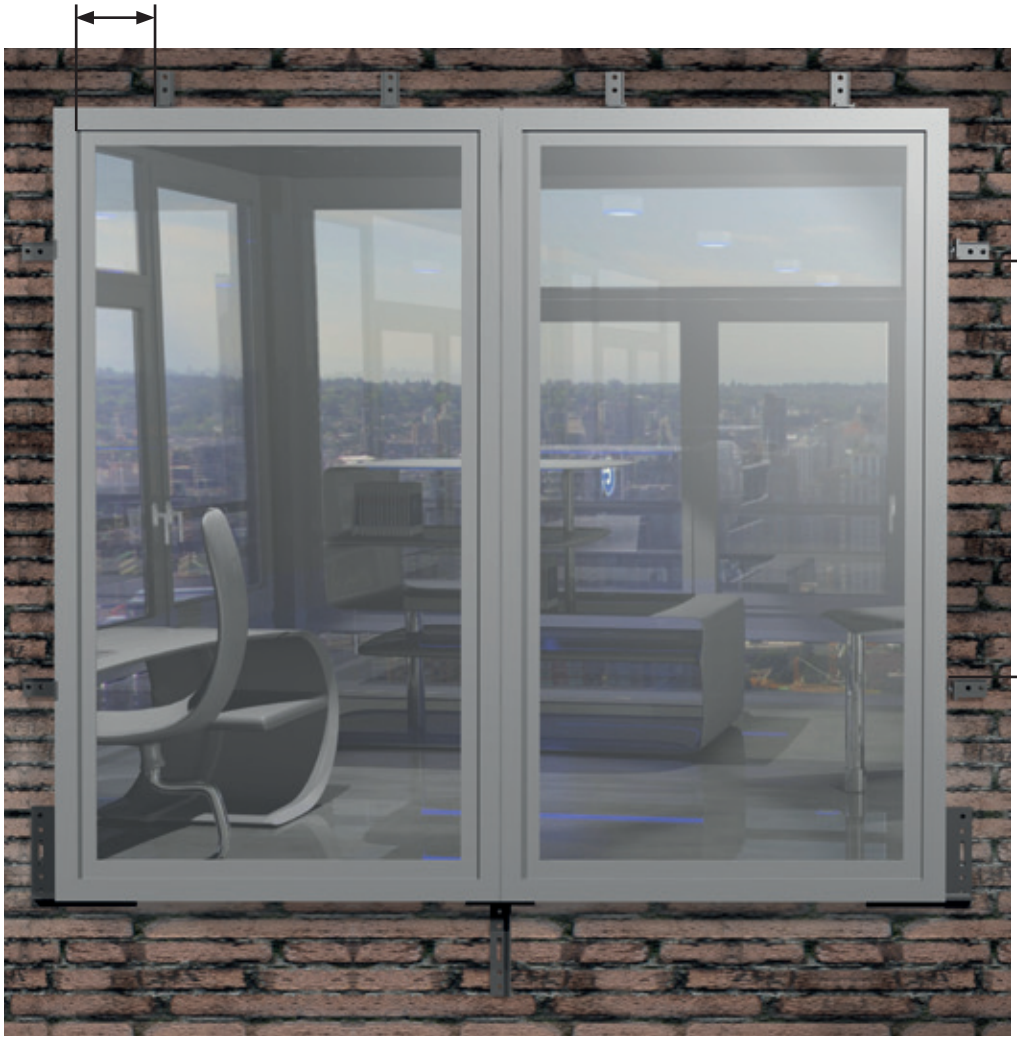
In the next step, the interior window sealing sheet is connected or bonded to the masonry.

Number of required GU support consoles and GU retaining angles

In principle, a right and a left GU supporting console should be used for window elements and only fixed with suitable screws and dowels. The installation material must be matched to the surrounding wall system and edge clearance.

The correct fixing points and the number of fasteners are important when installing windows and balcony-doors. The first fixing point should not exceed 100 to 150 mm from the frame inside corner. The distance between retaining angles may be max. 800 mm with timber or aluminium profiles and max. 700 mm with PVC profiles. The individual distance to be chosen and thus the required number of GU retaining angles is calculated from the size of the window element to be fitted and from the dead loads, live loads and wind loads acting on it.

Maximum 150 mm from the element corner



The maximum spacing* between retaining angles:

For PVC profiles
≤ 700 mm
For timber or aluminium profiles
≤ 800 mm

*** = Spacing of the fixing points and the number of GU retaining angles must be matched to the active forces and live loads (for example, dead weight, additional load, vertical and horizontal imposed load and wind load) acting on the window or balcony-door.**

Proven system solution from Gretsch-Unitas

GU supporting consoles and GU retaining angles

Component testing for load-bearing capacity

Nachweis

Prüfung von Befestigungssystemen zur auskragenden Fensterbefestigung. Tragfähigkeit in Fensterebene.

Prüfbericht
Nr. 13-002225-PR01
(PB-K26-09-de-01)

ift ROSENHEIM

Auftraggeber: Gretsch-Unitas GmbH, Baubeschläge, Johann-Maus-Str. 3, 71254 Ditzingen, Deutschland

Produkt: Montagekonsolen, Haltewinkel zur auskragenden Fensterbefestigung

Bezeichnung: Montagekonsolen rechts, links, mitte, Haltewinkel

Leistungsrelevante Produktdetails: Befestigungssystem 1 Montagekonsole rechts / links
Werkstoff S 235, Abmessung 220 x 200 x 70 x 2,5 / 4,5 mm, Oberfläche: galv. verzinkt,
Befestigungssystem 2: Montagekonsole mitte
Werkstoff S 235, Abmessung 220 x 200 x 70 x 2,5 / 4,5 mm, Oberfläche: galv. verzinkt,
Befestigungssystem 3: Haltewinkel
Werkstoff S 235, Abmessung 125 x 70 x 35 x 2,5 mm, Oberfläche: galv. verzinkt,

Besonderheiten: -/-

Ergebnis

Probekörper	Krafteinleitung in mm	charakteristische Tragfähigkeit F_{Rk} [kN] bei Auslenkung δ_x [mm]		
		1,0	2,0	3,0
Konsole rechts/links	100 / 35	1,09	2,14	3,38
Konsole rechts/links	30 / 35	0,62	0,87	1,25
Konsole rechts/links	100 / 55	0,09	1,07	1,48
Konsole rechts/links	30 / 55	0,13	0,55	1,14
Konsole mitte	100 / 55	1,71	2,61	2,71
Haltewinkel	17,5 / 65	0,20	0,34	0,44

*5%-Fraktile mit 90%-KIW

ift Rosenheim
03.04.2014

Wolfgang Jehl, Dipl.-Ing. (FH), Stv. Prüfstellenleiter, Baustoffe & Holzbauge

Christian Naudadher, Prüfingenieur Materialprüfung

Grundlagen
ift-Richtlinie MO-02/1
Teil 2: Verfahren zur Feststellung der Gebrauchstauglichkeit von Befestigungssystemen
Schlussentwurf: 03-14

Darstellung

Verwendungshinweise
Die ermittelten Ergebnisse können für den Nachweis entsprechend den oben angegebenen Grundlagen verwendet werden.

Gültigkeit
Die genannten Daten und Ergebnisse beziehen sich ausschließlich auf den geprüften und beschriebenen Probekörper.
Diese Prüfung ermöglicht keine Aussage über weitere leistungs- und qualitätsbestimmende Eigenschaften der vorliegenden Konstruktion.

Veröffentlichungshinweise
Es gilt das "Merkblatt zur Benutzung von ift-Prüfdokumentationen". Das Deckblatt kann als Kurzfassung verwendet werden.

Inhalt
Der Nachweis umfasst insgesamt 6 Seiten und Anlagen (4 Seiten).

RC 2 approval in accordance with EN 1627

Nachweis

einbruchhemmenden Eigenschaften

Gutachtliche Stellungnahme
Nr. 14-001726-PR01
(GAS-A01-11-de-01)

ift ROSENHEIM

Auftraggeber: Gretsch-Unitas GmbH, Baubeschläge, Johann-Maus-Str. 3, 71254 Ditzingen, Deutschland

Produkt: einbruchhemmende Holz-, Kunststoff- und Aluminiumfenster in Vorsatzmontage RC2

Bezeichnung: G-U Vorbau-Montagekonsolen und Haltewinkel

Außenmaß (B x H): verschieden

(Rahmen) Material: Geprüfte und gutachtlich zugelassene Systeme in Holz, Kunststoff und Aluminium.

Angriffseite: Schließfläche

Öffnungsart: einwärts

Verglasung: P4A nach DIN EN 356 bzw. Anforderungen nach nationalem Anhang der DIN EN 1627 : 2011

Beschläge: Uni-Jet, Gretsch-Unitas GmbH. Entsprechend den Grundlagendokumenten.

Einbruchhemmung nach DIN EN 1627 : 2011

RC 2 / RC 2 N*)

*) auf der Grundlage der oben rechts aufgeführten Prüfberichte und der ergänzenden, anbringungsbedingten Angaben

ift Rosenheim
07.08.2014

Jens Pickelmann, Produktingenieur Beutelle

Florian Willer, Dipl.-Ing. (FH), Prüfingenieur Sicherheitstechnik

Grundlagen
DIN EN 1627 : 2011
Türen, Fenster, Vorhangfassaden, Gitterelemente und Abschlüsse - Einbruchhemmung - Anforderungen und Klassifizierung
DIN EN 1628 : 2011
DIN EN 1629 : 2011
DIN EN 1630 : 2011

Prüfbericht 13-002124-PR03 vom 15. November 2013

Gutachtliche Stellungnahme 13-002124-PR05 vom 17. März 2014

Gutachtliche Stellungnahme 11-003389-PR01 vom 10. Januar 2013

Gutachtliche Stellungnahme 11-003389-PR02 vom 10. 1. 2013

Konstruktionsunterlagen
Anlage 1, Seite 1 bis 8

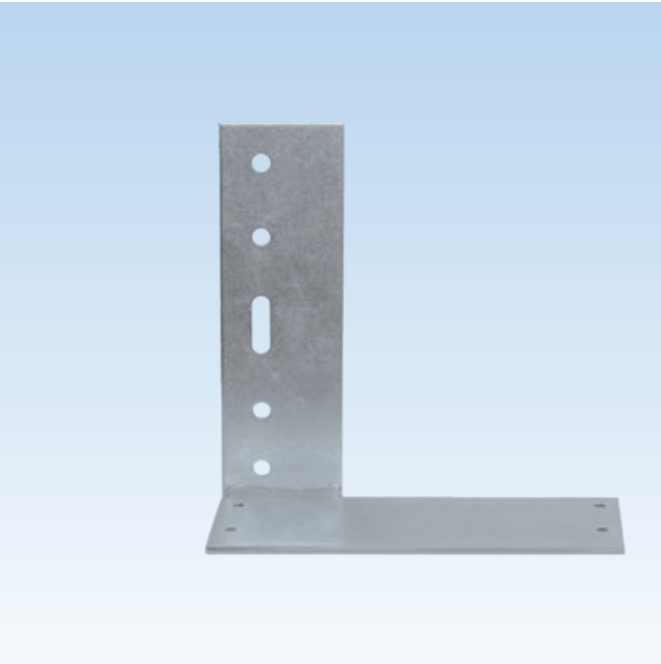
Gültigkeit
Die Prüfung der einbruchhemmenden Eigenschaften ermöglicht keine Aussage über weitere leistungs- und qualitätsbestimmende Eigenschaften der vorliegenden Konstruktion.
Die Gutachtliche Stellungnahme verliert ihre Gültigkeit mit dem Ende der Gültigkeit eines der o. g. Grundlagen (Normen oder Prüfberichte).

Veröffentlichungshinweise
Es gilt das ift-Merkblatt „Hinweise zur Benutzung von ift-Prüfberichten"
Das Deckblatt kann mit der Typenliste als Kurzfassung verwendet werden.

Inhalt
Die gutachtliche Stellungnahme umfasst insgesamt 12 Seiten

Deckblatt
Typenliste
Gutachtliche Stellungnahme
1 Auftrag
2 Grundlagen der Beurteilung
3 Beurteilung
4 Ergebnis und Aussage
Anlage 1, (8 Seiten)

GU supporting console, left-hand



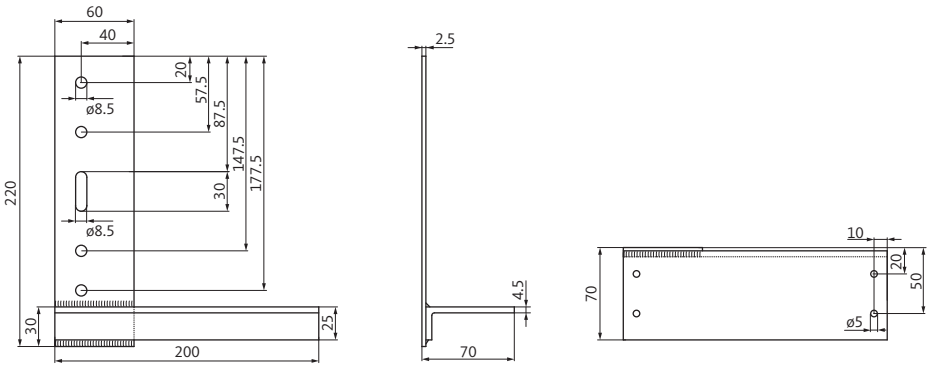
Product characteristics

The left supporting console belongs to the lower fastening base. Due to their large supporting surface, they can absorb the load of the elements optimally.

For the quantity required, refer to our processing instructions on page 232.

Order information

Designation	PU	Article number
GU supporting console, left-hand	1 pc	H-01515-00-L-0



GU supporting console, right-hand

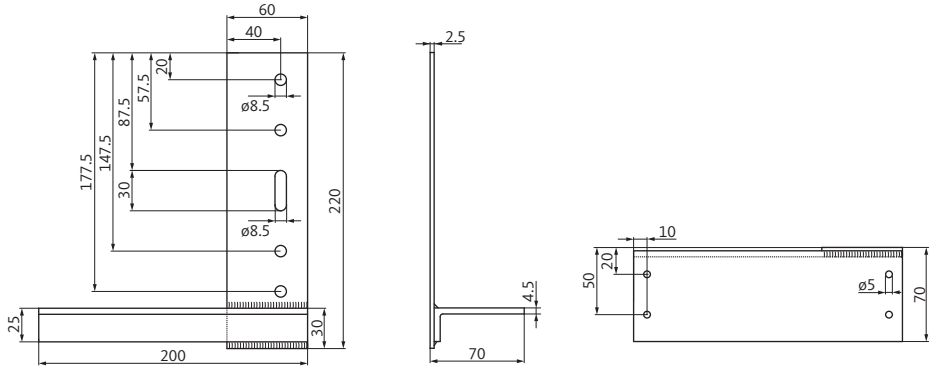
Product characteristics

The right supporting console belongs to the lower fastening base. Due to their large supporting surface, they can absorb the load of the elements optimally.

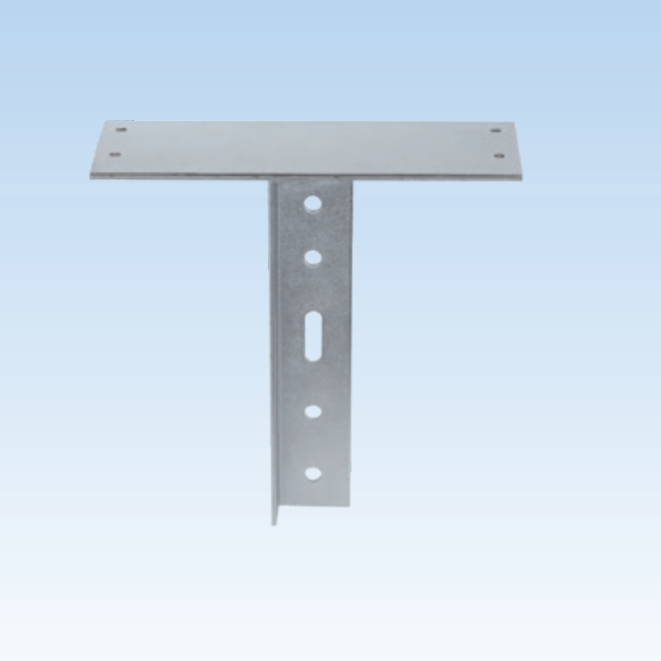
For the quantity required, refer to our processing instructions on page 232.

Order information

Designation	PU	Article number
GU supporting console, right-hand	1 pc	H-01515-00-R-0



GU supporting console, centred



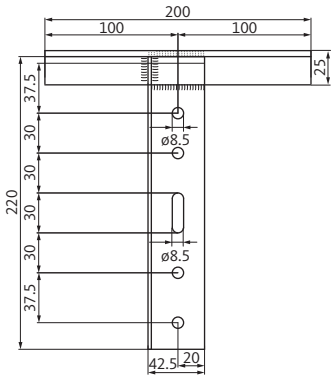
Product characteristics

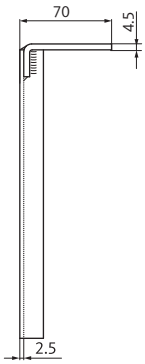
The centre supporting console is used for optimum lower load absorption of wide and coupled elements.

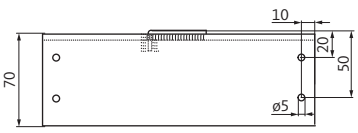
For the quantity required, refer to our processing instructions on page 232.

Order information

Designation	PU	Article number
GU supporting console, centred	1 pc	H-01516-00-0-0







GU retaining angle

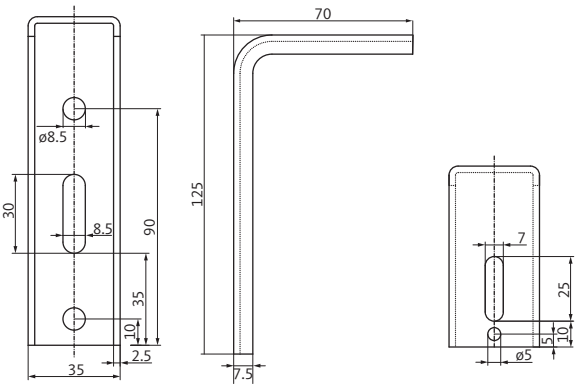
Product characteristics

The retaining angles are used especially for fixing points on the sides and top.

For the quantity required, refer to our processing instructions on page 232.

Order information

Designation	PU	Article number
GU retaining angle	1 pc	H-01517-00-0-0



GU fixing bracket, light

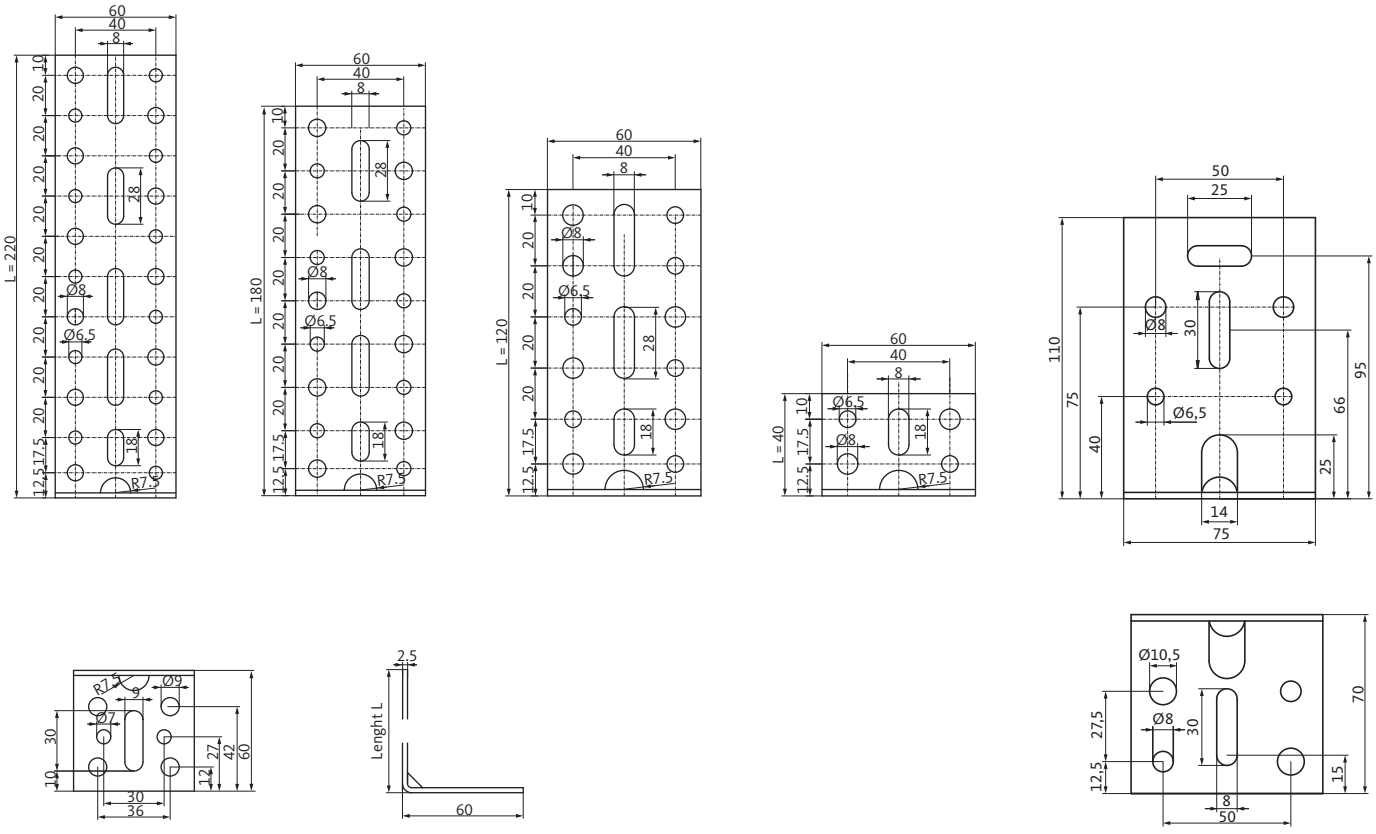
Product characteristics

GU fixing bracket for professional installation of windows and doors

- Straightforward and professional installation with screws
- Possibility of adjustment via oblong holes
- Various round hole spacings provide flexible fastening options
- Ideal for installation of full-height elements (windows/ balcony-doors)

Order information

Designation	Dimensions (mm)	PU	Article number
GU fixing bracket, light	40 x 60 x 60 x 2.5	50 pcs	H-01845-01-0-1
	120 x 60 x 60 x 2.5	50 pcs	H-01845-02-0-1
	180 x 60 x 60 x 2.5	25 pcs	H-01845-03-0-1
	220 x 60 x 60 x 2.5	25 pcs	H-01845-04-0-1
	110 x 70 x 75 x 2.5	25 pcs	H-01871-00-0-1



GU fixing bracket, heavy

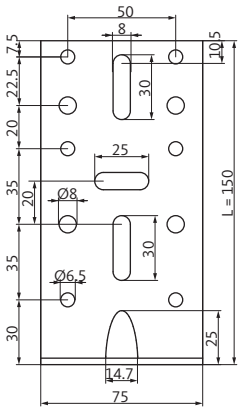
Product characteristics

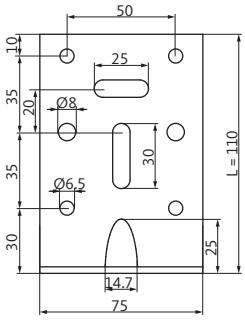
GU fixing bracket for professional installation of windows and doors

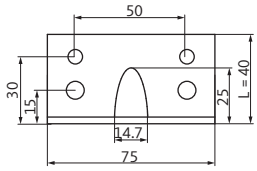
- Straightforward and professional installation with screws
- Reinforcing rib provides high degree of stability
- Possibility of adjustment via oblong holes
- Various round hole spacings provide flexible fastening options
- Ideal for installation of full-height elements (windows/ balcony-doors)

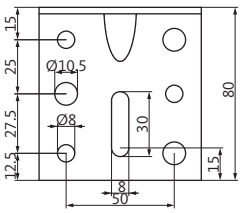
Order information

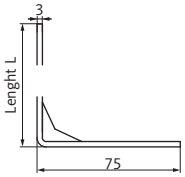
Designation	Dimensions (mm)	PU	Article number
GU fixing bracket, heavy	40 x 80 x 75 x 3	50 pcs	H-01846-01-0-1
	110 x 80 x 75 x 3	25 pcs	H-01846-02-0-1
	150 x 80 x 75 x 3	25 pcs	H-01846-03-0-1



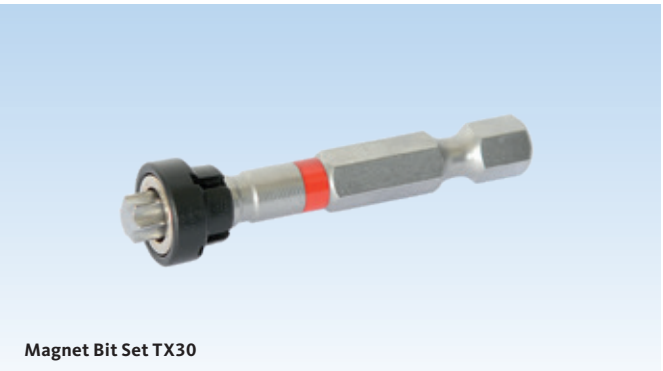








GU fixing bracket ST (with statics)



Magnet Bit Set TX30

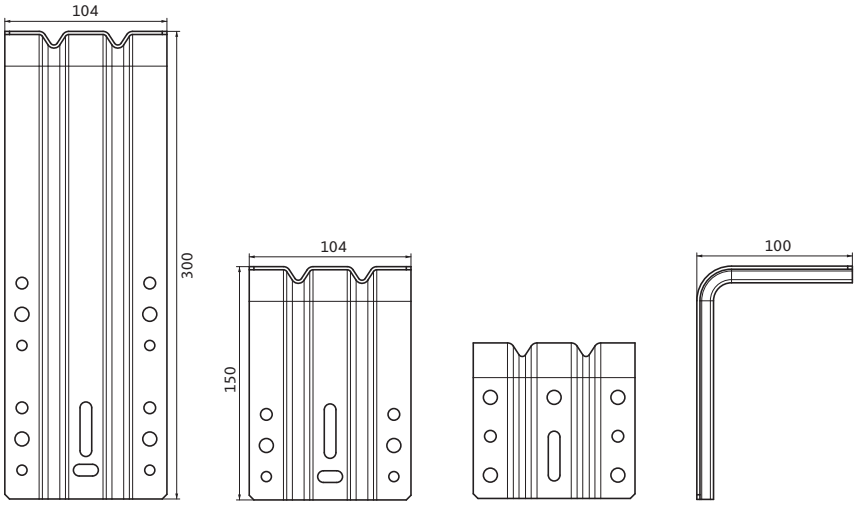
Product characteristics

GU fixing bracket ST (with statics) for professional installation of windows and doors

- Easy and professional fixing in concrete and frame with turbo screws
- Reinforcing rib provides high degree of stability
- Possibility of adjustment via oblong holes
- Various round hole spacings provide flexible fastening options
- Ideal for installation of full-height elements (windows/balcony-doors)
- Higher forces can be diverted by means of profiling
- Higher degree of corrosion protection by means of electrogalvanising
- For interior use

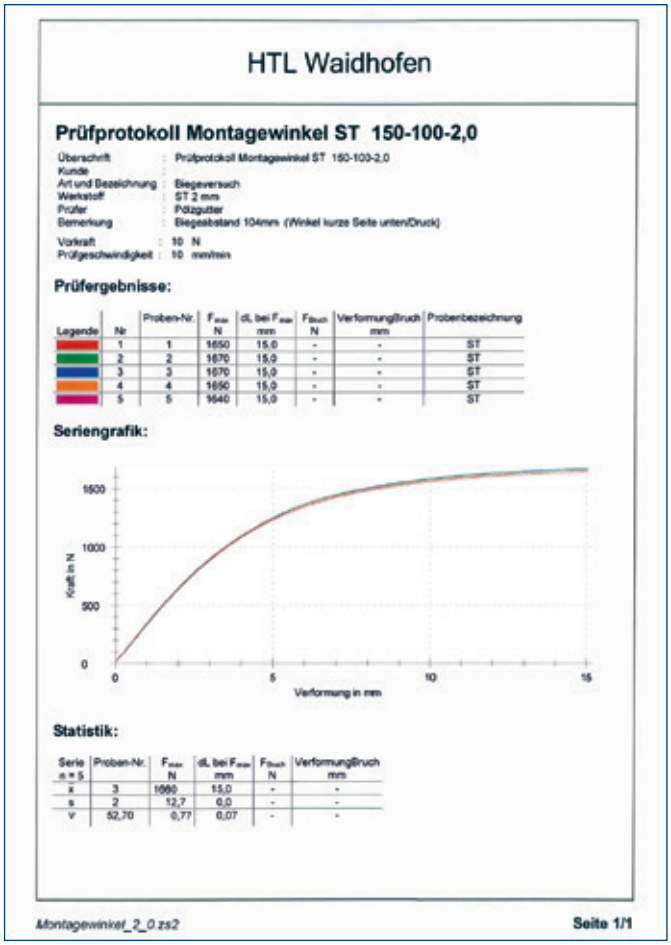
Order information

Designation	Dimensions (mm)	PU	Article number
GU mounting screw BE1	Ø 7.5 mm	100 pcs	E-15303-**-0-1
GU mounting screw BE4	Ø 7.5 mm	100 pcs	H-01880-**-0-1
GU mounting screw BE5	Ø 6.3 mm	100 pcs	H-01844-**-0-1
Magnet Bit Set TX30 5-part		1 pc	H-01881-00-0-0
GU fixing bracket ST (with statics)	150 x 104 x 100 x 2	40 pcs	H-01879-15-0-1
	200 x 104 x 100 x 2	25 pcs	H-01879-20-0-1
	220 x 104 x 100 x 2	25 pcs	H-01879-22-0-1
	240 x 104 x 100 x 2	25 pcs	H-01879-24-0-1
	260 x 104 x 100 x 2	25 pcs	H-01879-26-0-1
	280 x 104 x 100 x 2	25 pcs	H-01879-28-0-1
	300 x 104 x 100 x 2	25 pcs	H-01879-30-0-1



GU fixing bracket ST (with statics)

Testing documentation, GU fixing bracket ST (with statics)



HTL Waidhofen

Prüfprotokoll Montagewinkel ST 150-100-2,0

Überschrift	:	Prüfprotokoll Montagewinkel ST 150-100-2,0
Kunde	:	
Art und Bezeichnung	:	Biegeversuch
Werkstoff	:	ST 2 mm
Prüfer	:	Pölzgutter
Bemerkung	:	Biegeabstand 104mm (Winkel kurze Seite unten/Druck)
Vorkraft	:	10 N
Prüfgeschwindigkeit	:	10 mm/min

Prüfergebnisse:

Legende	Nr	Proben-Nr.	F_{max} N	dL bei F_{max} mm	F_{Bruch} N	Verformung/Bruch mm	Probenbezeichnung
	1	1	1650	15,0	-	-	ST
	2	2	1670	15,0	-	-	ST
	3	3	1670	15,0	-	-	ST
	4	4	1650	15,0	-	-	ST
	5	5	1640	15,0	-	-	ST

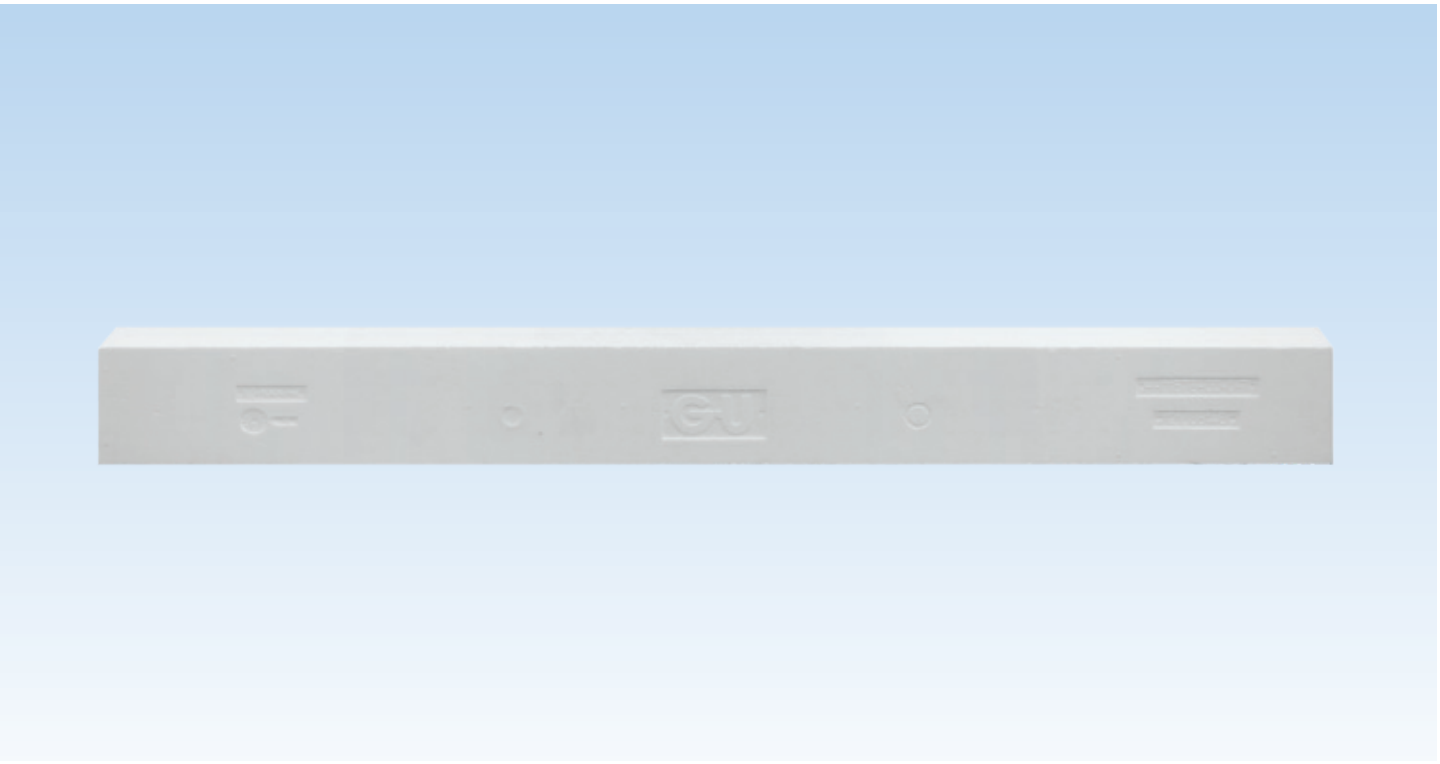
Seriengrafik:

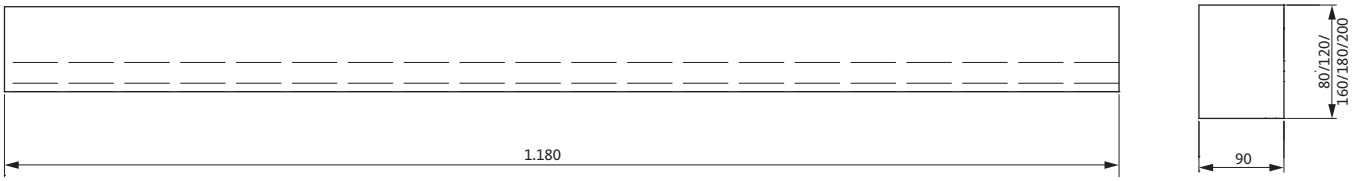
Statistik:

Serie n = 5	Proben-Nr.	F_{max} N	dL bei F_{max} mm	F_{Bruch} N	Verformung/Bruch mm
x	3	1660	15,0	-	-
s	2	12,7	0,0	-	-
v	52,70	0,77	0,07	-	-

Montagewinkel_2_0.zs2 **Seite 1/1**

GU frame for projecting installation





Product description

The fully installed GU frame for projecting installation forms a frame around the window opening. As a result, the window can be installed in precisely the same way as a conventional window is installed in masonry. The compelling product range of the GU group with its six different profiles has the right solution for any installation situation.

Processing

- To ensure an optimum support of the GU frame for projecting installation, fasten it using the GU 1K installation adhesive and GU anchor for projecting installation

Product characteristics

- Effective sound insulation 46 dB
- Approved for passive houses Ψ = 0.01 W (m-K)
- Free of thermal bridges
- Thermal conductivity λ = 0.0307 W (m-K)
- Fire behaviour in accordance with EN 13501-1, grade E (approved)
- Fire behaviour in accordance with DIN 4102-1, grade B1
- High load absorption (579 kg)
- Fall protection TRAV in accordance with DIN 18008
- Proof according to ETB guideline of at least 2.8 kN for each fixing material
- RC 2 approval in accordance with EN 1627
- High compressive strength 806 kPa
- Sealing in accordance with accepted rules of engineering

GU frame for projecting installation

Order information

Designation	Dimensions	Colour	PU	PU/Pallet	Article number
GU frame for projecting installation	90 x 65 x 1180 mm	White	36 pcs	108 pcs	H-01573-06-0-7
	90 x 80 x 1180 mm	White	30 pcs	90 pcs	H-01573-08-0-7
	90 x 120 x 1180 mm	White	18 pcs	54 pcs	H-01573-12-0-7
	90 x 160 x 1180 mm	White	15 pcs	45 pcs	H-01573-16-0-7
	90 x 180 x 1180 mm	White	12 pcs	36 pcs	H-01573-18-0-7
	90 x 200 x 1180 mm	White	12 pcs	36 pcs	H-01573-20-0-7

Fixing accessories for GU frame for projecting installation

Order information

Designation	Selective dimensioning of GU frame for projecting installation	Recommended dimension GU anchor for projecting installation	PU	Article number
	90 x 65 x 1180 mm	10 x 140 mm	100 pcs	H-01624-14-0-1
	90 x 80 x 1180 mm	10 x 160 mm	100 pcs	H-01624-16-0-1
	90 x 120 x 1180 mm	10 x 180 mm	100 pcs	H-01624-18-0-1
	90 x 160 x 1180 mm	10 x 220 mm	100 pcs	H-01624-22-0-1
	90 x 180 x 1180 mm	10 x 240 mm	100 pcs	H-01624-24-0-1
	90 x 200 x 1180 mm	10 x 260 mm	100 pcs	H-01624-26-0-1

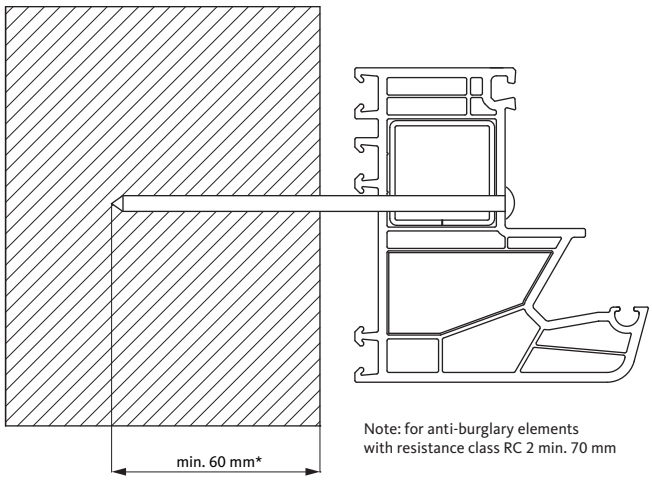
[1] For order information refer to page 228

Order information

Designation	Packaging	Contents	Colour	PU/Box	Article number
GU 1K installation adhesive [1]	Cartridge	290 ml	Grey	12 pcs	H-01175-00-0-0
	Soft-pack	600 ml	Grey	20 pcs	H-01175-60-0-0

[1] For order information refer to page 154

Fastening the frame profile to the GU frame for projecting installation



Note: for anti-burglary elements with resistance class RC 2 min. 70 mm

Processing information

GU frame for projecting installation

The GU frame for projecting installation is a powerful problem solver for modern construction and energetic renovation. Windows and balcony-doors can no longer be fixed directly through the frame to the masonry in the case of multiple-layer outer walls that are formed by fixing a exterior insulation finishing system (EIFS). Conventional installation was done in the EIFS i.e. in a nonstructural material.

Supporting structures are therefore essential for the fixing frame of structural elements. The GU frame for projecting installation performs its function particularly well thanks to its impressive features. It is very efficient to work with and has been tested for burglary protection to EN 1627 up to resistance class RC 2. In addition, the rectangular cross-section of the frame provides flexibility: it can be installed in two positions, so that, for example, the installation depth can vary between 90 and 120 millimetres.

Installation – step 1

During installation, the GU frame for projecting installation fixed under the component is first cut to the length of the dimensions of the window. The dimension here is calculated from the left outer edge of the frame formed by the frame to the right outside edge. The horizontal lower element is therefore measured along the full length, and the upper frame is also measured in the same way. The vertical frames are fitted to the sides of the window between these horizontal elements.

Installation – step 2

After cutting, the GU-1K installation adhesive is applied bead- and serpentine-like to the frame for projecting installation and then bonded to the surrounding masonry. In doing so the abutting edges must be glued airtight. The special processing instructions of the products used and the surface treatment must be observed.

Installation – step 3

Then the bonded GU frame for frame for projecting installation is also fixed to the GU anchor for projecting installation. At least three anchors per frame must be installed and the positions on the frame where they must be fixed is described in the graphic on the opposite side. The maximum distances from the outer edges of the GU frame for projecting installation to the first screw connection is 150 millimetres with a maximum of 700 millimetres between the fixing points. Carrying out the screw connection according to these specifications provides the necessary edge spacing for fixing stability on all sides.

Installation – step 4

The structural elements are installed perpendicularly and flush with the GU frame for projecting installation. Fixing the lower shims is not required for an exact plumbing of the frame. Installation of the window is carried out with self-cutting frame anchor screws (diameter 7.5 mm). When selecting the screw length, it is essential to ensure that there is a minimum engagement depth of 60 millimetres in the GU frame for projecting installation. In addition, the separate test certificate and the corresponding installation instructions must be observed with anti-burglary versions.

Installation – step 5

The sealing between the structural element and the GU frame for projecting installation is made in the last step. GU gun foam, GU outside window sealing tape, GU joint sealing tape, GU sealing tape BG1 and other sealing products of the GU group are used here.

Note: during the entire installation process, the "Guidelines for planning and executing the installation of windows and house doors for new constructions and renovations" of the RAL-Gütegemeinschaft Fenster und Haustüren e.V. should be observed.

Installation examples

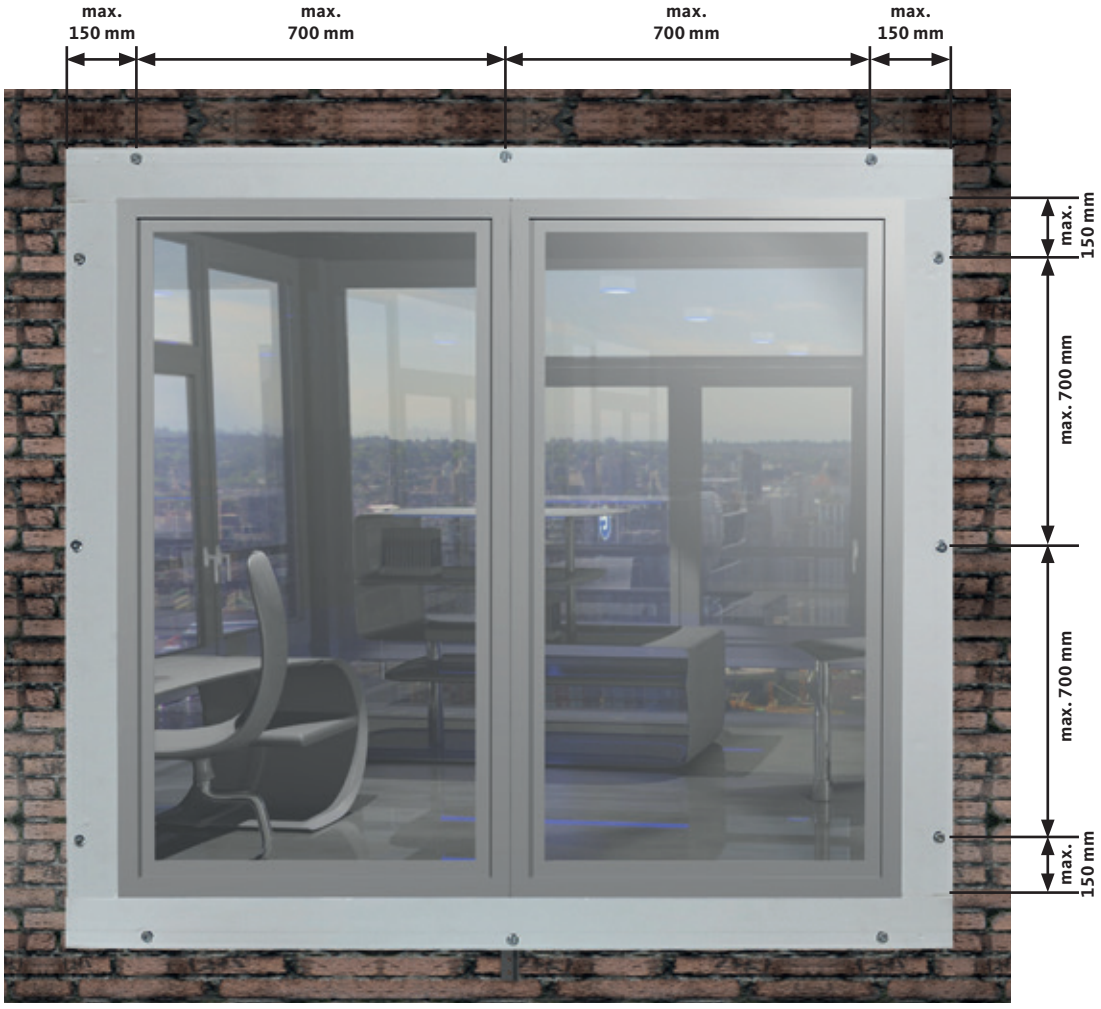
Suitable for all profile depths and frame materials. Especially suitable for use in double-layer clinker facades: Here the GU frame for projecting installation satisfies the demands for load absorption, thermal protection, windproofness and sound insulation with maximum efficiency.

Processing information

GU frame for projecting installation

Features and benefits of projecting installation at a glance

- Positioning and installing the window in the insulation plane without much effort
- No risk of thermal bridges
- Perfect for clinker facades: installation in the insulation plane, systematic load absorption and precise sealing
- GU frame for projecting installation can be used either-way (for example, 90/120 mm)
- Complete installation using only three products:
  – GU frame for projecting installation
  – GU anchor for projecting installation
  – GU 1K installation adhesive
- These three products together constitute an approved system
- Airtight installation on the masonry using GU-1K installation adhesive
- Edge distance of 70 mm (indicated by a mark) is complied with when choosing a fixing point
- All mounting points for the GU frame for projecting installation are complied with, even for PVC and timber/ aluminium profiles
- Combinable with the GU supporting consoles and GU retaining angles
- Can be plastered and painted-over
- GU frame for projecting installation can be drilled, screwed and sawn, thus enabling quick and easy installation
- Window is fitted in prefabricated frame without additional drilling
- The GU anchor for projecting installation can be used with all types of stone, the manufacturer's specifications must be observed



Proven system solution from Gretsch-Unitas

GU frame for projecting installation

Component testing of sound insulation

RC 2 approval in accordance with EN 1627

Test certificate, ETB guideline

Component testing of suitability for use in low-energy and passive houses

Component testing for load-bearing capacity (load absorption)

Test certificate, fall protection in accordance with DIN 18008-4

Proven system solution from Gretsch-Unitas

GU frame for projecting installation

TFI-Bericht 450502-03

Brandprüfung

zur Klassifizierung gemäß EN 13501-1:2010

Bericht erstellt für

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen
DEUTSCHLAND

Produkt

Wärmeisolierende und schallisolierende GU-Vorbauzarge

Fachlich verantwortlich

Dipl.-Ing. Ulrike Balg
Tel: +49 241 9679 133
u.balg@ift-online.de

Dieser Bericht umfasst 2 Seiten und 2 Anlagen.
Dieser Bericht ist eine Korrektur des Prüfberichtes Nr. 450502-01.

Aachen, 20.04.2015

Dr. Ernst Schröder

Dieses Dokument wurde mit einer qualifizierten elektronischen Signatur versehen und ist ohne Unterschrift gültig.

Dieser Bericht bezieht sich nur auf die geprüften Proben und wurde nach bestem Wissen und Gewissen erstellt. Er darf nur vollständig, niemals auszugsweise, wiedergegeben werden. Im Übrigen gelten die Allgemeinen Bedingungen der Textiles & Flooring Institute GmbH für die Auftragsdurchführung.

Testing the fire behaviour of construction products in accordance with EN ISO 11925-2: 2010

TFI-Bericht 450502-04

Klassifizierung

zum Brandverhalten nach EN 13501-1:2010

Bericht erstellt für

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Straße 3
71254 Ditzingen
DEUTSCHLAND

Produkt

Wärmeisolierende und schallisolierende GU-Vorbauzarge

Fachlich verantwortlich

Dipl.-Ing. Ulrike Balg
Tel: +49 241 9679 133
u.balg@ift-online.de

Dieser Bericht umfasst 4 Seiten und 0 Anlage(n).
Dieser Bericht ist eine Korrektur des Klassifizierungsberichtes Nr. 450502-02.

Aachen, 20.04.2015

Dr. Ernst Schröder

Dieses Dokument wurde mit einer qualifizierten elektronischen Signatur versehen und ist ohne Unterschrift gültig.

Dieser Bericht bezieht sich nur auf die geprüften Proben und wurde nach bestem Wissen und Gewissen erstellt. Er darf nur vollständig, niemals auszugsweise, wiedergegeben werden. Im Übrigen gelten die Allgemeinen Bedingungen der Textiles & Flooring Institute GmbH für die Auftragsdurchführung.

Classification for fire behaviour in accordance with EN 13501-1: 2010

TFI-Bericht 451070-01

Wärmeleitfähigkeit

Bericht erstellt für

Gretsch-Unitas GmbH
Johann-Maus-Straße 3
71254 Ditzingen
DEUTSCHLAND

Produkt

Bauelement
GU Vorbauzarge

Fachlich verantwortlich

Dr.-Ing. Alexander Siebel
Tel: +49 241 9679 170
a.siebel@ift-online.de

Dieser Bericht umfasst 2 Seiten und 1 Anlage(n).

Aachen, 03.07.2015

Dieser Bericht bezieht sich nur auf die geprüften Proben und wurde nach bestem Wissen und Gewissen erstellt. Er darf nur vollständig, niemals auszugsweise, wiedergegeben werden. Im Übrigen gelten die Allgemeinen Bedingungen der Textiles & Flooring Institute GmbH für die Auftragsdurchführung.

Component testing of thermal conductivity

WD 451070-01-WD

Anlage WD - Wärmedurchlasswiderstand

1 Vorgang

Produktbezeichnung	GU Vorbauzarge
TFI-Probennummer	15-06-0258
Prüfzeitraum	30.06.2015

2 Prüfverfahren / Anforderungen

Prüfverfahren	EN 12667:2001 Bestimmung des Wärmedurchlasswiderstandes Prüfung mit dem Plattengerät nach ISO 8302:1991
Prüfgerät	Einplattengerät, horizontal
Konditionierung	24 h Lagerung (60°C Trockenschrank)
Dicke im eingebauten Zustand [m]	0,021
Anzahl der eingebauten Lagen	1
Rohdichte [kg/m³]	56,7

3 Ergebnisse

Prüfung	T_1 [°C]	T_2 [°C]	ΔT [K]	T_m [°C]	λ [W/(m*K)]
1	10,1	20,8	10,7	0,03162	0,03162
2	19,9	30,5	10,6	0,03523	0,03523
3	29,8	40,3	10,6	0,03635	0,03635
Ermittelte Wärmeleitfähigkeit λ_{TR} [W/(m*K)]					0,0357

1: Temperatur der kalten Prüfoberseite
2: Temperatur der warmen Prüfoberseite
ΔT: Temperaturdifferenz; ΔT=(T1-T2)
T_m: mittlere Prüfkörpertemperatur; $T_m=(T_1+T_2)/2$
λ: Wärmeleitfähigkeit

4 Anwendung

Die Messwerte der Wärmeleitfähigkeit sind für den trockenen Zustand der Probe ermittelt, sie stellen keine Bemessungswerte nach DIN 4108 oder Nennwerte nach EN 13163 dar.

Seite 1 von 1

GU sill frame

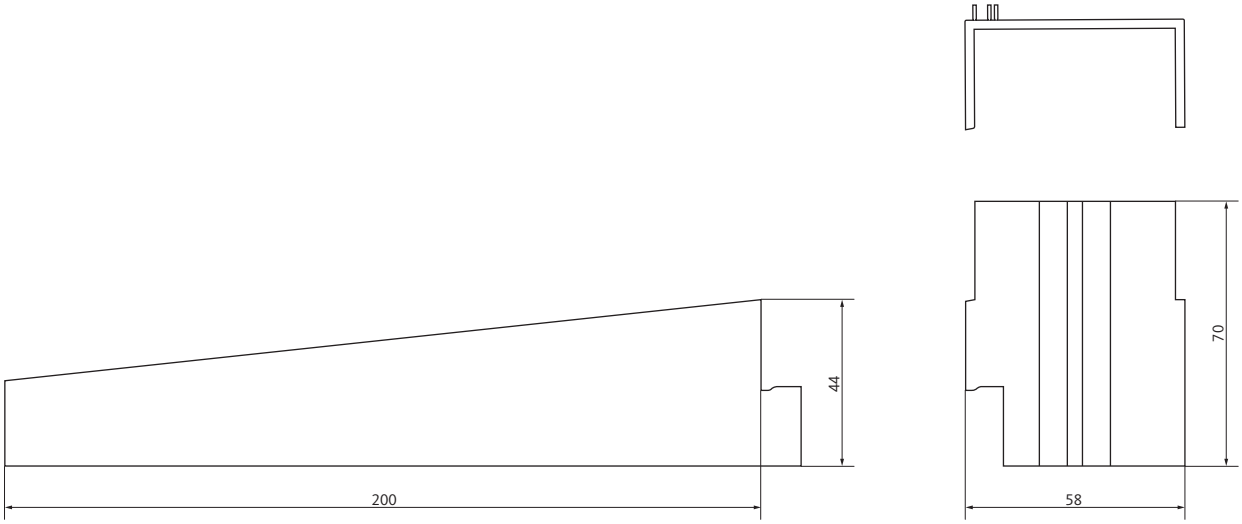
Product description

The three-part GU sill frame is approved for passive house, efficiency house KFW 40 Plus, 40 and 55. The integrated multifunctional adapter enables optimum window connection for all profiles.

The GU sill frame ensures interior and exterior sealing as well as thermal and acoustic insulation.

Order information

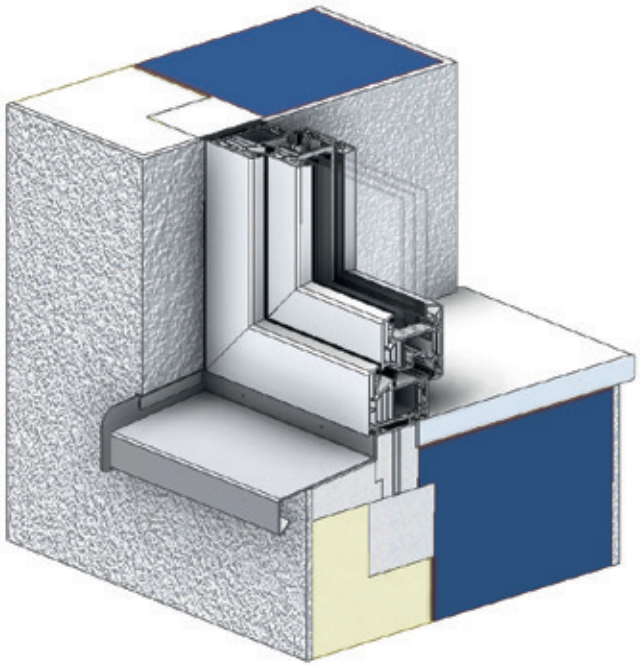
Designation	PU	Article number
GU sill frame, white 1180 mm	2 pcs	H-01873-02-0-7
	10 pcs	H-01873-10-0-7



GU sill frame

Product characteristics

- Positive isothermal characteristic, the 12.6 °C isotherm circulates inside the construction, a perfect building-physical window connection
- Accurate fixation of the window due to multifunctional adapter
- Ideal sealing and insulation of the lower window connection
- Air tightness can be achieved without great expenditure
- Prevention of condensation and mould
- High level of sound insulation
- Acoustic/thermal insulation of the window parapet
- High tightness against driving rain
- Fire protection class B1 (in test)
- The window connection profile can be used for all window types currently available on the market



Installation situation, window

GU sill frame

Test report, linear coefficient of heat transition

TFI-Bericht 471980-04

Längenbezogener Wärmedurchgangskoeffizient

Auftraggeber

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
DEUTSCHLAND

Produkt

Sohlbankzarge
GU Sohlbankzarge

Dieser Bericht umfasst 3 Seiten.
Dieser Bericht ist eine Zweitschrift des Prüfberichtes Nr. 471980-03.

Fachlich verantwortlich

- Leitende Prüfingenieurin -
Dr.-Ing. Heike Kempf
Tel: +49 241 9679 171
h.kempf@tfi-online.de

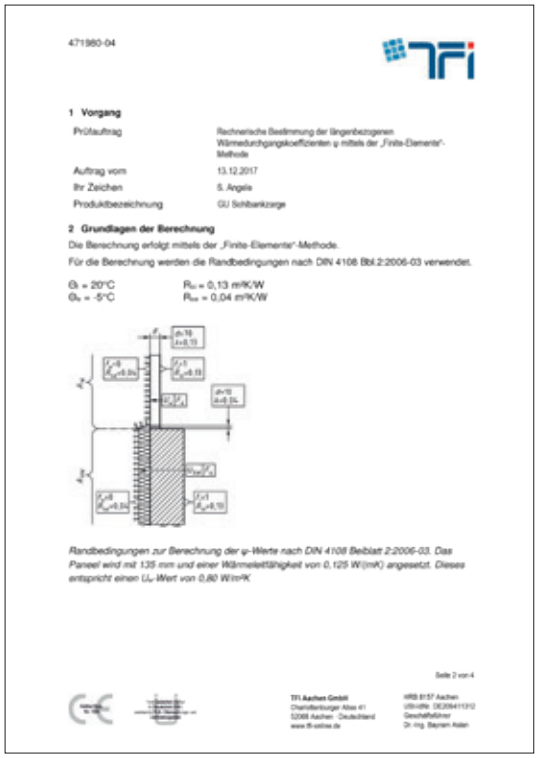
Aachen, 09.01.2018

ppa. Dr. Alexander Siebel
- Leiter der Prüfstelle -
Dieses Dokument wurde mit einer fortgeschrittenen elektronischen Signatur versehen.

Dieser Bericht bezieht sich nur auf die geprüften Proben und wurde nach bestem Wissen und Gewissen erstellt. Er darf nur vollständig, niemals auszugsweise, weitergegeben werden. Im Übrigen gelten die Allgemeinen Bedingungen der TFI Aachen GmbH für die Auftragsdurchführung.

TFI Aachen GmbH
Charlottenburger Allee 41
52068 Aachen - Deutschland
www.tfi-online.de

HRB 8157 Aachen
USt-IdNr. DE209411312
Geschäftsführer
Dr.-Ing. Bayram Aslan



471980-04

1 Vorgang

Prüfauftrag	Rechnerische Bestimmung der längenbezogenen Wärmedurchgangskoeffizienten ψ mittels der „Finite-Elemente"-Methode
Auftrag vom	13.12.2017
Ihr Zeichen	S. Angele
Produktbezeichnung	GU Sohlbankzarge

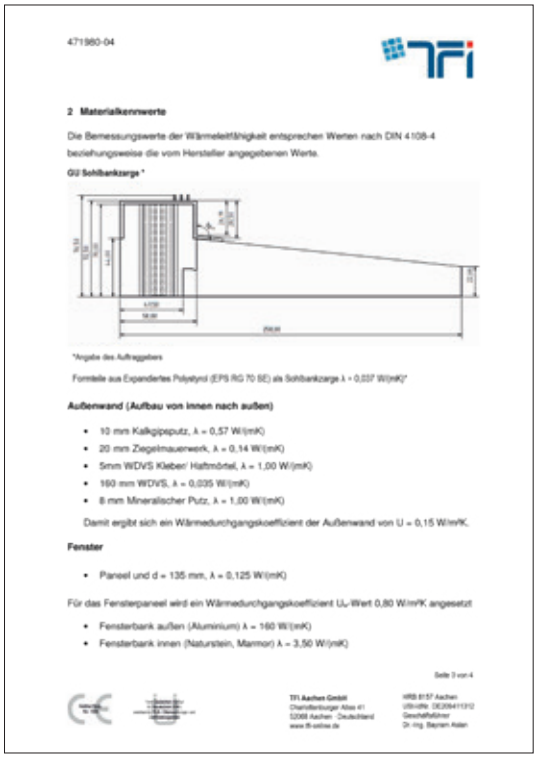
2 Grundlagen der Berechnung

Die Berechnung erfolgt mittels der „Finite-Elemente"-Methode.
Für die Berechnung werden die Randbedingungen nach DIN 4108 Bbl.2:2006-03 verwendet.

Θ_i = 20°C R_{si} = 0,13 m²K/W
Θ_e = -5°C R_{se} = 0,04 m²K/W

Randbedingungen zur Berechnung der ψ-Werte nach DIN 4108 Beiblatt 2:2006-03. Das Paneel wird mit 135 mm und einer Wärmeleitfähigkeit von 0,125 W/(mK) angesetzt. Dieses entspricht einen U_p-Wert von 0,80 W/m²K

Seite 2 von 4



471980-04

2 Materialkennwerte

Die Bemessungswerte der Wärmeleitfähigkeit entsprechen Werten nach DIN 4108-4 beziehungsweise die vom Hersteller angegebenen Werte.

GU Sohlbankzarge *

*Angabe des Auftraggebers

Formteile aus Expandiertes Polystyrol (EPS RG 70 SE) als Sohlbankzarge λ = 0,037 W/(mK)*

Außenwand (Aufbau von innen nach außen)

- 10 mm Kalkgipsputz, λ = 0,57 W/(mK)
- 20 mm Ziegelmauerwerk, λ = 0,14 W/(mK)
- 5mm WDVS Kleber/ Haftmörtel, λ = 1,00 W/(mK)
- 160 mm WDVS, λ = 0,035 W/(mK)
- 8 mm Mineralischer Putz, λ = 1,00 W/(mK)

Damit ergibt sich ein Wärmedurchgangskoeffizient der Außenwand von U = 0,15 W/m²K.

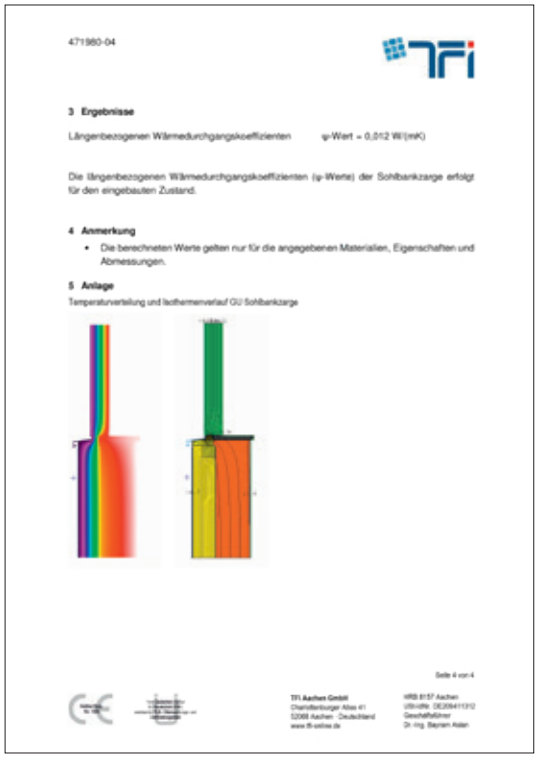
Fenster

- Paneel und d = 135 mm, λ = 0,125 W/(mK)

Für das Fensterpaneel wird ein Wärmedurchgangskoeffizient U_p-Wert 0,80 W/m²K angesetzt

- Fensterbank außen (Aluminium) λ = 160 W/(mK)
- Fensterbank innen (Naturstein, Marmor) λ = 3,50 W/(mK)

Seite 3 von 4



471980-04

3 Ergebnisse

Längenbezogenen Wärmedurchgangskoeffizienten ψ-Wert = 0,012 W/(mK)

Die längenbezogenen Wärmedurchgangskoeffizienten (ψ-Werte) der Sohlbankzarge erfolgt für den eingebauten Zustand.

4 Anmerkung

- Die berechneten Werte gelten nur für die angegebenen Materialien, Eigenschaften und Abmessungen.

5 Anlage

Temperaturverteilung und Isothermenverlauf GU Sohlbankzarge

Seite 4 von 4

Test results

Frame connection under examination	Width/Height mm	Ψ value W/(mK)	Test report no.
Bottom connection	258 / 72.5	0.012	471980-04

GU sill frame

Test report, airborne sound insulation

TFI-Bericht 471980-02

Luftschalldämmung

Auftraggeber

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
DEUTSCHLAND

Produkt

Sohlbankzarge
GU Sohlbankzarge

Dieser Bericht umfasst 3 Seiten und 1 Anlage(n).
Dieser Bericht ist eine Zweitschrift des Prüfberichtes Nr. 471980-01.

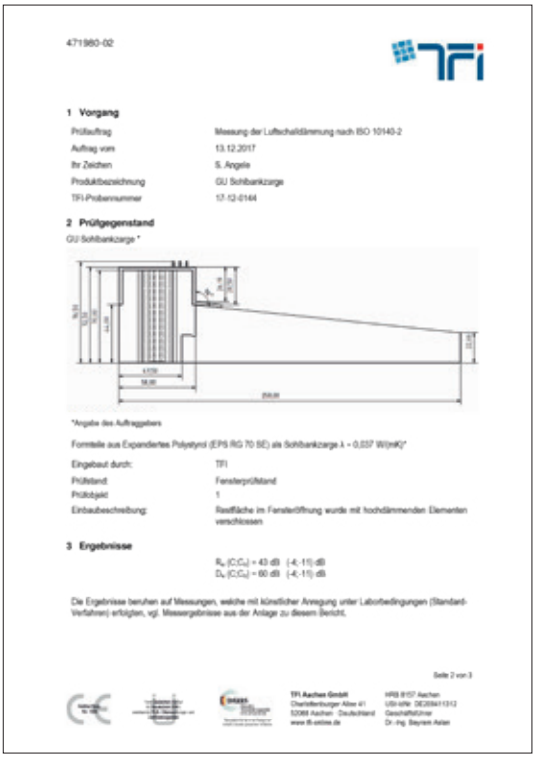
Fachlich verantwortlich

Dr.-Ing. Heike Kempf
Tel: +49 241 9679 171
h.kempf@ift-online.de

Aachen, 09.01.2018

Dr. Alexander Siebel
- Leiter der Prüfstelle -

Dieses Dokument wurde mit einer fortgeschrittenen elektronischen Signatur versehen.



471980-02

1 Vorgang

Prüfauftrag	Messung der Luftschalldämmung nach ISO 10140-2
Auftrag vom	13.12.2017
Ihr Zeichen	S. Angelis
Produktbezeichnung	GU Sohlbankzarge
TFI-Probennummer	17-12-0144

2 Prüfgegenstand

GU Sohlbankzarge *

*Angabe des Auftraggebers

Formteile aus Expandiertes Polystyrol (EPS RG 70 SE) als Sohlbankzarge λ = 0,037 W/(mK)*

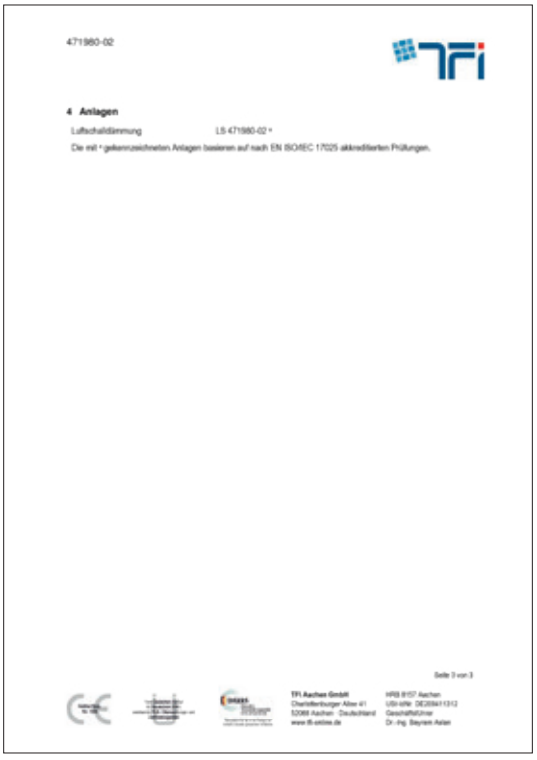
Eingebaut durch:	TFI
Prüfstand:	Fensterprüfstand
Prüfobjekt:	1
Einbaubeschreibung:	Restfläche im Fensteröffnung wurde mit hochdämmenden Elementen verschlossen

3 Ergebnisse

$R_w (C;C_{tr})$ = 43 dB (-4; -11) dB
$D_n (C;C_{tr})$ = 60 dB (-4; -11) dB

Die Ergebnisse beruhen auf Messungen, welche mit künstlicher Anregung unter Laborbedingungen (Standard-Verfahren) erfolgten, vgl. Messergebnisse aus der Anlage zu diesem Bericht.

Seite 2 von 3



471980-02

4 Anlagen

Luftschalldämmung	LS 471980-02 *

Die mit * gekennzeichneten Anlagen basieren auf nach EN ISO/IEC 17025 akkreditierten Prüfungen.

Seite 3 von 3

Test results

Frame connection under examination	Acoustic test dB	Test report no.
Bottom connection	43	471980-02

General information

Glazing accessories

Planning and basics

Correct blocking

Correct blocking is one of the most important fundamentals when installing glazing. The fundamentals apply for both single-pane and multi-pane insulating glass (MIG).

The function of the glazing depends on suitable blocking, the frame construction and the selection of correct materials for implementation, among others.

Due to the variety of tasks, different requirements and number of design options, it is important to plan the blocking.

The goal of correct positioning is to direct the loads to the glazing packers and beyond to the structure.

In doing so, take into account that at no time may the glass edges and the border seal system with insulating glass be overloaded. This is the only way to permanently avoid glass breakage and other damages.

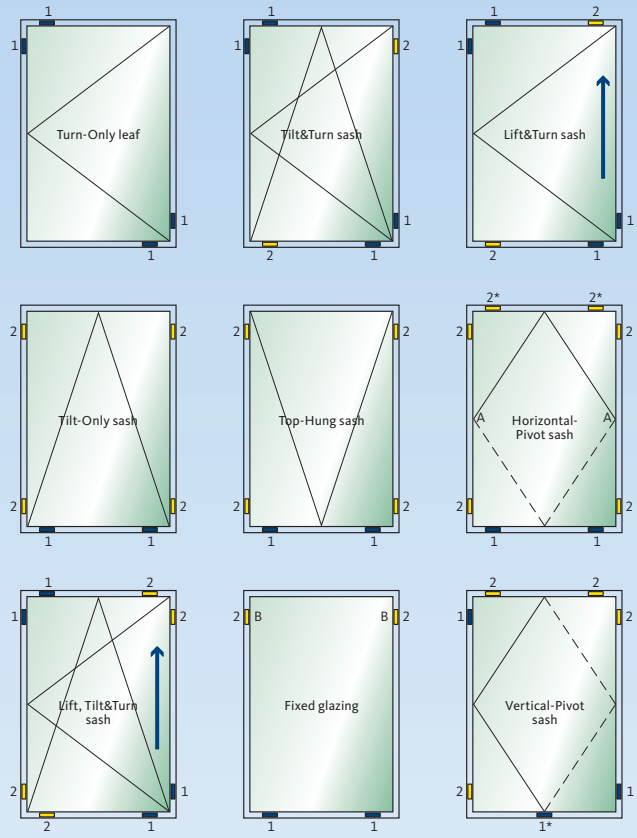
Important: Positioning of blocks is a planning task.

Order our "Guideline for correct and secure glazing" for guidance on this aspect.

Functions

The blocks fulfil a wide array of tasks that can mainly be evaluated in the installed condition. Their functions are different and can change briefly, depending on the opening type.

Types of opening – flat glass panes



1 **Bearing blocks**

2 **Spacer blocks**

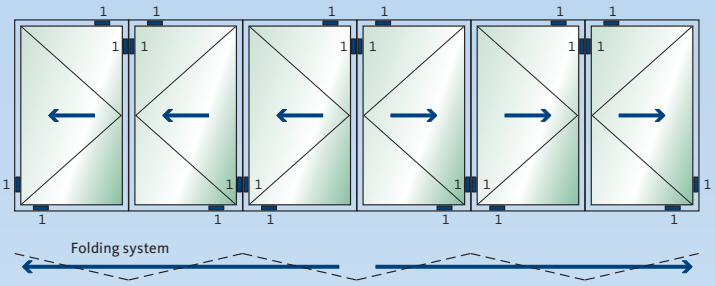
1* = For glazing units that are over 1 m wide, 2 bearing blocks of at least 10 cm in length should lie above the turn-only hinge

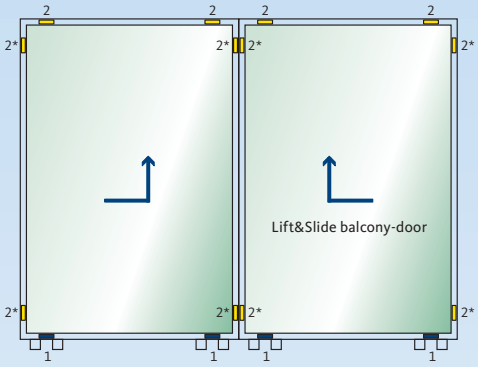
2* = Spacer blocks become bearing blocks when pivoting sashes rotate

A-Recommendation: For horizontal-pivot windows made of plastic profiles, it is recommended that you ask the profile or frame manufacturer about the corresponding blocking at the horizontal pivot.

B-Recommendation: The lateral spacer blocking can be eliminated for fixed glazing if it can be ensured that the glass edge does not have mechanical contact with the frame construction.

Planning and basics





1 **Bearing blocks**

2 **Spacer blocks**

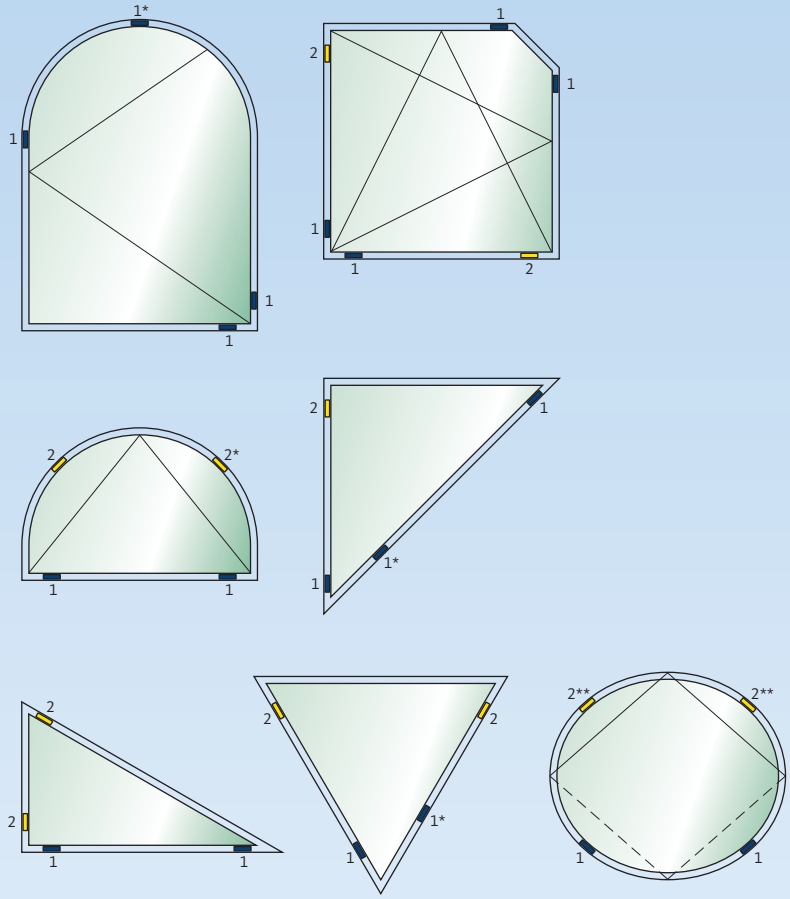
* = Recommendation: spacer blocks made of elastomer synthetic material (60°–80° Shore-A)

For horizontal sliding windows, the frame manufacturers of the various systems specify special glazing regulations, which also include information for blocking. These must be followed if they do not contradict the requirements of weight compensation and other glazing techniques.

Otherwise, the following must be observed: the glazing units receive two bearing blocks, which must be arranged exactly over the rollers. In the case of double rollers, the bearing blocks must lie between the roller axes. The rollers must not be positioned less than the minimum distance from the corner of the glazing unit.

Planning and basics

Special shapes / model panes



1 **Bearing blocks**

2 **Spacer blocks**

* = Block materials of elastomers 60–80° Shore-A

** = Spacer blocks become bearing blocks when sashes rotate

Triangles must not be blocked at the apex. Make sure that block setting does not cause the glazing unit to be overstrained through restraint of the glazing unit. The blocks at the apex should be offset from each other by a block's length.

Important: Even if the apex of the triangle has been cut back (capping of the lower apex) and so is blunt, it must not be used for block setting.

Tasks

To summarise, the following describes the tasks that blocks must permanently fulfil to avoid damage to the glass edge or to the border seal of the insulated glass and to ensure permanent functioning of window, door and facade:

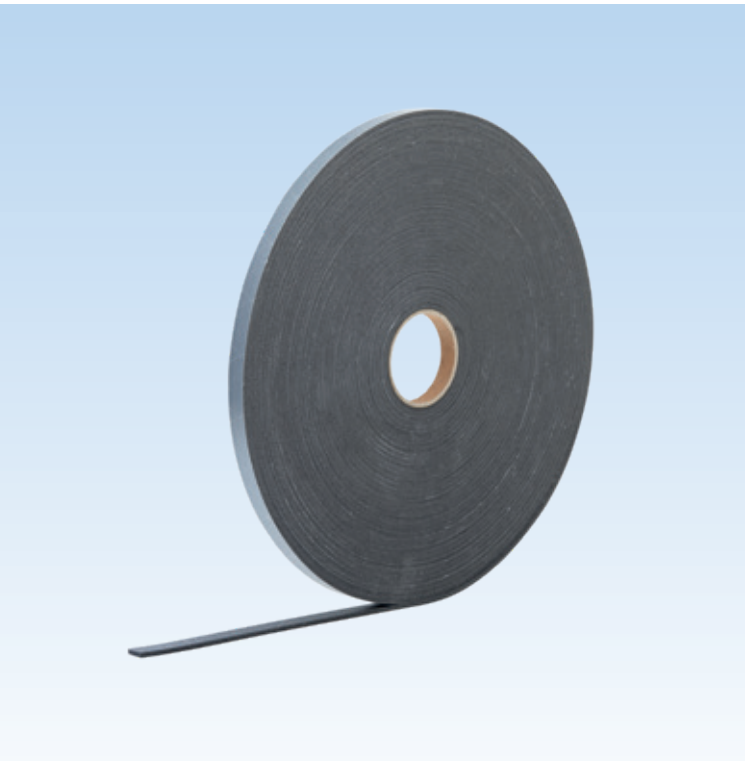
- They carry the weight of the glazing unit to the frame, where the load continues on to the hardware and the fastening of the frame into the adjacent masonry. This ensures the durability of the window's ability to function through foreseeable loads, such as weight, operation, temperature, etc.
- They make sure that the glass edges at no time touch the frame
- They hold the sashes geometrically stable. This requires avoidance of sash frame setting. Further, the sashes must not experience deformation or tilting, so proper movement can be ensured.
- They carry the forces off to the rebate base, the hardware and then to the surroundings (e.g. supporting structure, masonry)

Important: The frame construction must be dimensioned to be sufficiently stable so that it can absorb the weight of the glazing units correctly. If the glazing unit should take over additional loads from the frame construction or stabilise them, consultation with the glass manufacturer is required.

Further important information about correct installation of glazing units

- Technical guideline no. 3 "Klotzung von Verglasungseinheiten" [Blocking of glazing units] from the Federal Association of German Glazing Guilds (BIV), Hadamar

GU filler tapes



Product description

The material of the filler tape is composed of self-adhesive closed cell polyethylene foam and is characterised by its fine pores and smoothness. This characteristic and a consistently high product quality enable efficient and reliable solutions for a wide range of industrial and building applications.

GU filler tapes are resistant to aging, free of plasticisers and compatible with many standard sealing compounds. They can be used on all materials such as timber, plastic and metal.

Product characteristics

- Smooth
- Fine-pored
- Water-repellent
- Good resistance to aging
- Environmentally friendly, chemically neutral

Applications

- Sealing
- Damping
- Insulating
- Cushioning

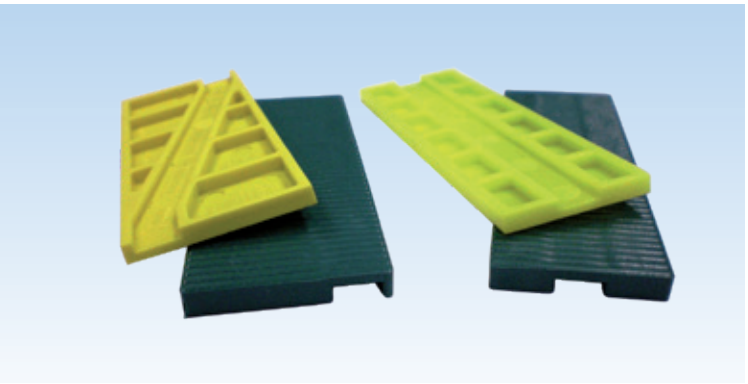
GU filler tapes

Order information

Designation	Delivery	Width	Thickness	Colour	PU	Article number
GU filler tapes	Rollers	9 mm	3 mm	Black	660 m	H-00121-09-0-6
	Rollers	9 mm	3 mm	White	660 m	H-00121-09-0-7
	Rollers	12 mm	3 mm	Black	500 m	H-00121-12-0-6
	Rollers	12 mm	3 mm	White	500 m	H-00121-12-0-7

GU glazing packers / GU glazing packers with vent

Glazing packers in thicknesses of 1–6 mm



Glazing packers with vent

Product description

GU glazing packers and GU glazing packers with vent are made of polypropylene, and thus show a high compatibility with composite materials as well as with glass interlayers (e.g. PVB foils/sound absorbing foils).

GU glazing packers and GU glazing packers with vent are positioned between glass edge and frame according to their function and type of opening. They fulfil the function of support blocks (load transfer) or the function of spacer blocks (security device between glass edge and frame).

GU glazing packers and GU glazing packers with vent have to be secured; the position may not be changed after installation.

GU glazing packers with vent are glazing packers with a venting duct. These ensure compensation of the surrounding vapour pressure in frame constructions with smooth rebate base.

The vent in the glazing packer is located at a thickness of 4 mm and 5 mm since there is no vent through the continuous surface of smaller thicknesses.

Up to a glazing packer's width of 30 mm, the vent runs straight, as double insulating glass is used. For widths exceeding 34 mm the vent runs diagonally in order to bear triple insulating glass and to transfer the weight of all three glass panes.

GU glazing packers/GU glazing packers with vent

Functions

Load transfer = bearing block/bearing blocks:
They transfer the glazing unit's own weight onto the frame construction according to the requirements of the opening type.

Spacer securing = spacer block/spacer blocks
They secure the distance between the glass edge and rebate base and thus ensure tension-free installation and the required ventilation of the rebate clearance.

Securing the rebate ventilation =
glazing packer with vent/glazing packers with vents:
On the bottom of the glazing packer with vent is a continuous ventilation channel (parallel to the block length). With a flat rebate base, glazing packers with vents ensure the surrounding vapour pressure compensation. They thereby fulfil the task of bearing or spacer blocks, depending on the position in the sash.

Assembly aid = auxiliary block
Block used during the blocking procedure or while the glazing unit is inserted. This is then removed again after completion of the functional blocking. If the auxiliary block is not removed, the risk of glass breakage rises.

GU glazing packers / GU glazing packers with vent

Order information

Designation		Length	Width	Thickness	Colour	PU	Article number
GU glazing packers	Glazing packer	100 mm	22 mm	1 mm	White	1,000 pcs	9-37476-25-0-0
	Glazing packer	100 mm	22 mm	2 mm	Blue	1,000 pcs	9-37476-26-0-0
	Glazing packer	100 mm	22 mm	3 mm	Red	1,000 pcs	9-37476-27-0-0
	Glazing packer	100 mm	22 mm	4 mm	Yellow	1,000 pcs	9-37476-28-0-0
	Glazing packer	100 mm	22 mm	5 mm	Green	1,000 pcs	9-37476-29-0-0
	Glazing packer	100 mm	22 mm	6 mm	Black	1,000 pcs	9-37476-30-0-0
GU glazing packers	Glazing packer	100 mm	24 mm	1 mm	White	1,000 pcs	9-37476-01-0-0
	Glazing packer	100 mm	24 mm	2 mm	Blue	1,000 pcs	9-37476-02-0-0
	Glazing packer	100 mm	24 mm	3 mm	Red	1,000 pcs	9-37476-03-0-0
	Glazing packer	100 mm	24 mm	4 mm	Yellow	1,000 pcs	9-37476-04-0-0
	Glazing packer	100 mm	24 mm	5 mm	Green	1,000 pcs	9-37476-05-0-0
	Glazing packer	100 mm	24 mm	6 mm	Black	1,000 pcs	9-37476-06-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	26 mm	1 mm	White	1,000 pcs	9-37476-07-0-0
	Glazing packer	100 mm	26 mm	2 mm	Blue	1,000 pcs	9-37476-08-0-0
	Glazing packer	100 mm	26 mm	3 mm	Red	1,000 pcs	9-37476-09-0-0
	Glazing packer with vent	100 mm	26 mm	4 mm	Yellow	1,000 pcs	9-37476-62-0-0
	Glazing packer with vent	100 mm	26 mm	5 mm	Green	1,000 pcs	9-37476-63-0-0
	Glazing packer	100 mm	26 mm	6 mm	Black	1,000 pcs	9-37476-12-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	28 mm	1 mm	White	1,000 pcs	9-37476-13-0-0
	Glazing packer	100 mm	28 mm	2 mm	Blue	1,000 pcs	9-37476-14-0-0
	Glazing packer	100 mm	28 mm	3 mm	Red	1,000 pcs	9-37476-15-0-0
	Glazing packer with vent	100 mm	28 mm	4 mm	Yellow	1,000 pcs	9-37476-70-0-0
	Glazing packer with vent	100 mm	28 mm	5 mm	Green	1,000 pcs	9-37476-71-0-0
	Glazing packer	100 mm	28 mm	6 mm	Black	1,000 pcs	9-37476-18-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	30 mm	1 mm	White	1,000 pcs	9-37476-19-0-0
	Glazing packer	100 mm	30 mm	2 mm	Blue	1,000 pcs	9-37476-20-0-0
	Glazing packer	100 mm	30 mm	3 mm	Red	1,000 pcs	9-37476-21-0-0
	Glazing packer	100 mm	30 mm	4 mm	Yellow	1,000 pcs	9-37476-22-0-0
	Glazing packer with vent	100 mm	30 mm	4 mm	Yellow	1,000 pcs	9-37476-64-0-0
	Glazing packer with vent	100 mm	30 mm	5 mm	Green	1,000 pcs	9-37476-65-0-0
	Glazing packer	100 mm	30 mm	5 mm	Green	1,000 pcs	9-37476-23-0-0
	Glazing packer	100 mm	30 mm	6 mm	Black	1,000 pcs	9-37476-24-0-0
	Glazing packer	100 mm	30 mm	8 mm	Grey	1,000 pcs	9-37476-61-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	32 mm	1 mm	White	1,000 pcs	9-37476-36-0-0
	Glazing packer	100 mm	32 mm	2 mm	Blue	1,000 pcs	9-37476-37-0-0
	Glazing packer	100 mm	32 mm	3 mm	Red	1,000 pcs	9-37476-38-0-0
	Glazing packer with vent	100 mm	32 mm	4 mm	Yellow	1,000 pcs	9-37476-72-0-0
	Glazing packer with vent	100 mm	32 mm	5 mm	Green	1,000 pcs	9-37476-73-0-0
	Glazing packer	100 mm	32 mm	6 mm	Black	1,000 pcs	9-37476-60-0-6
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	34 mm	1 mm	White	1,000 pcs	9-37476-41-0-0
	Glazing packer	100 mm	34 mm	2 mm	Blue	1,000 pcs	9-37476-42-0-0
	Glazing packer	100 mm	34 mm	3 mm	Red	1,000 pcs	9-37476-43-0-0
	Glazing packer with vent	100 mm	34 mm	4 mm	Yellow	1,000 pcs	9-37476-66-0-0
	Glazing packer with vent	100 mm	34 mm	5 mm	Green	1,000 pcs	9-37476-67-0-0
	Glazing packer	100 mm	34 mm	6 mm	Black	1,000 pcs	9-37476-59-0-0

GU glazing packers / GU glazing packers with vent

Order information

Designation		Length	Width	Thickness	Colour	PU	Article number
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	36 mm	1 mm	White	1,000 pcs	9-37476-77-0-0
	Glazing packer	100 mm	36 mm	2 mm	Blue	1,000 pcs	9-37476-78-0-0
	Glazing packer	100 mm	36 mm	3 mm	Red	1,000 pcs	9-37476-79-0-0
	Glazing packer with vent	100 mm	36 mm	4 mm	Yellow	1,000 pcs	9-37476-80-0-0
	Glazing packer with vent	100 mm	36 mm	5 mm	Green	1,000 pcs	9-37476-81-0-0
	Glazing packer	100 mm	36 mm	6 mm	Black	1,000 pcs	9-37476-75-0-0
	Glazing packer	100 mm	36 mm	7 mm	Grey	1,000 pcs	9-37476-76-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	40 mm	1 mm	White	1,000 pcs	9-37476-46-0-0
	Glazing packer	100 mm	40 mm	2 mm	Blue	1,000 pcs	9-37476-47-0-0
	Glazing packer	100 mm	40 mm	3 mm	Red	1,000 pcs	9-37476-48-0-0
	Glazing packer with vent	100 mm	40 mm	4 mm	Yellow	1,000 pcs	9-37476-68-0-0
	Glazing packer with vent	100 mm	40 mm	5 mm	Green	1,000 pcs	9-37476-69-0-0
	Glazing packer	100 mm	40 mm	4 mm	Yellow	1,000 pcs	9-37476-49-0-0
	Glazing packer	100 mm	40 mm	5 mm	Green	1,000 pcs	9-37476-50-0-0
	Glazing packer	100 mm	40 mm	6 mm	Black	1,000 pcs	9-37476-58-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	44 mm	1 mm	White	1,000 pcs	9-37476-82-0-0
	Glazing packer	100 mm	44 mm	2 mm	Blue	1,000 pcs	9-37476-83-0-0
	Glazing packer	100 mm	44 mm	3 mm	Red	1,000 pcs	9-37476-84-0-0
	Glazing packer with vent	100 mm	44 mm	4 mm	Yellow	1,000 pcs	9-37476-85-0-0
	Glazing packer with vent	100 mm	44 mm	5 mm	Green	1,000 pcs	9-37476-86-0-0
GU glazing packers	Glazing packer	100 mm	46 mm	1 mm	White	1,000 pcs	9-37476-35-0-0
	Glazing packer	100 mm	46 mm	2 mm	Blue	1,000 pcs	9-37476-31-0-0
	Glazing packer	100 mm	46 mm	3 mm	Red	1,000 pcs	9-37476-32-0-0
	Glazing packer	100 mm	46 mm	4 mm	Yellow	1,000 pcs	9-37476-33-0-0
	Glazing packer	100 mm	46 mm	5 mm	Green	1,000 pcs	9-37476-34-0-0
	Glazing packer	100 mm	46 mm	6 mm	Black	1,000 pcs	9-37476-57-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	50 mm	1 mm	White	1,000 pcs	9-37476-51-0-0
	Glazing packer	100 mm	50 mm	2 mm	Blue	1,000 pcs	9-37476-52-0-0
	Glazing packer	100 mm	50 mm	3 mm	Red	1,000 pcs	9-37476-53-0-0
	Glazing packer with vent	100 mm	50 mm	4 mm	Yellow	1,000 pcs	9-37476-87-0-0
	Glazing packer with vent	100 mm	50 mm	5 mm	Green	1,000 pcs	9-37476-88-0-0
	Glazing packer	100 mm	50 mm	4 mm	Yellow	1,000 pcs	9-37476-54-0-0
	Glazing packer	100 mm	50 mm	5 mm	Green	1,000 pcs	9-37476-55-0-0
	Glazing packer	100 mm	50 mm	6 mm	Black	1,000 pcs	9-37476-56-0-0
GU glazing packers	Glazing packer	100 mm	52 mm	1 mm	White	1,000 pcs	9-37476-94-0-0
	Glazing packer	100 mm	52 mm	2 mm	Blue	1,000 pcs	9-37476-95-0-0
	Glazing packer	100 mm	52 mm	3 mm	Red	1,000 pcs	9-37476-96-0-0
	Glazing packer	100 mm	52 mm	4 mm	Yellow	1,000 pcs	9-37476-97-0-0
	Glazing packer	100 mm	52 mm	5 mm	Green	1,000 pcs	9-37476-98-0-0
	Glazing packer	100 mm	52 mm	6 mm	Black	1,000 pcs	9-37476-99-0-0
GU glazing packers / GU glazing packers with vent	Glazing packer	100 mm	54 mm	1 mm	White	1,000 pcs	9-37476-89-0-0
	Glazing packer	100 mm	54 mm	2 mm	Blue	1,000 pcs	9-37476-90-0-0
	Glazing packer	100 mm	54 mm	3 mm	Red	1,000 pcs	9-37476-91-0-0
	Glazing packer with vent	100 mm	54 mm	4 mm	Yellow	1,000 pcs	9-37476-92-0-0
	Glazing packer with vent	100 mm	54 mm	5 mm	Green	1,000 pcs	9-37476-93-0-0

GU compensating blocks

Compensating blocks with three-point clamping

Product description

GU compensating blocks serve the purpose of profile compensation, that is, with obliquely running rebates or bars in the area of the rebate base, they offset them and form a flat base for the bearing or spacer blocking.

They are thus dependent on the system. After clipping in, they form an even surface and a stable support for the GU glazing packer.

The three-point clamping makes them easy and quick to install. Their resilient bends can reliably absorb high tolerances, thus preventing slipping in the profile. Straps at the sides of the GU compensating blocks prevent the GU glazing packer from slipping when it is placed on top later.

GU compensating blocks are made of polypropylene and thus show a high compatibility with composite materials.

Order information

Profile system specifications				Colour	PU	Article number
Aluplast	4000	Sash and frame profiles	–	Black	1,300 pcs	9-45197-00-0-6
	5000	Sash profile, not stuck				
	6000	Sash profile				
	7000	Sash and frame profiles				
Veka	Softline AD	Sash and frame profiles	–	Black	1,500 pcs	9-45199-00-0-6
	Softline MD	Sash profile				
	Topline AD	Sash and frame profiles				
	Topline MD	Sash profile				
	Swingline AD	Sash and frame profiles				
	Alphaline MD	Sash profile				
KBE	70 AD	Sash and frame profiles	–	Black	1,500 pcs	9-45198-00-0-6
	70 MD	Sash profile				
Schüco	CT 70 AS Classic	Sash and frame profiles	–	Black	1,500 pcs	9-45201-00-0-6
	CT 70 AS Rondo	Sash and frame profiles				
	CT 70 MD Classic	Sash profile				
	CT 70 MD Rondo	Sash profile				

GU compensating blocks

Order information

Profile system specifications				Colour	PU	Article number
Schüco	DTI 82 / 82+ 9071	Sash	82 x 83 mm	Black	1,000 pcs	9-45200-00-0-6
	DTI 82 / 82+ 8813	Sash	82 x 120 mm			
	DTI 82 / 82+ 8810	Sash	82 x 73 mm			
	DTI 82 / 82+ 8811	Sash	82 x 83 mm			
	DTI 82 / 82+ 8817	Sash	82 x 83 mm			
	DTI 82 / 82+ 8812	Sash	82 x 103 mm			
	DTI 82 / 82+ 8513	Mullion	82 x 70 mm			
	DTI 82 / 82+ 8514	Mullion	82 x 91 mm			
Kömmerling	Euro Futur MD	Sash profile	–	Black	1,300 pcs	9-45203-00-0-6
	Euro Futur Classic AD	Sash and frame profiles				
	Euro Futur Elegance AD	Sash and frame profiles				
Rehau	Brillant (S799) AD	Sash and frame profiles	–	Black	1,300 pcs	9-45203-00-0-6
Kömmerling	88+ 6211	Sash	88 x 78 mm	Black	1,000 pcs	9-45204-00-0-6
	88+ 6214	Sash	88 x 97 mm			
	88+ 6216	Sash	88 x 122 mm			
	88+ 6215	Sash, outward opening	88 x 122 mm			
	88+ 6218	Sash, outward opening	88 x 97 mm			
	88+ 6269	Mullion	88 x 68 mm			
	88+ 6242	Mullion	88 x 98 mm			
Rehau	Geneo 532036	Sash	86 x 77 mm	Black	1,000 pcs	9-45202-00-0-6
	Geneo 532226	Sash	86 x 77 mm			
	Geneo 532136	Sash	86 x 104 mm			
	Geneo 532236	Sash	86 x 104 mm			
	Geneo 532146	Sash, outward opening	86 x 104 mm			
	Geneo 532166	Sash	86 x 117 mm			
	Geneo 532295	Mullion	86 x 64 mm			
	Geneo 532055	Mullion **	86 x 98 mm			
	Geneo 532345	Mullion **	86 x 126 mm			
	Geneo 532015	Frame **	86 x 72 mm			
	Geneo 532305	Frame **	86 x 86 mm			
Gealan	S 7000 IQ	Sash profile	–	Black	1,300 pcs	9-45206-00-0-6
	S 7000 IQ plus	Sash profile				
	S 8000 IQ	Sash and frame profiles				
	S 8000 IQ plus	Sash profile				
Salamander	Blue evolution 171 020	Sash	92 x 80 mm	Black	1,000 pcs	9-45205-00-0-6
	Blue evolution 171 226	Sash	92 x 80 mm			
	Blue evolution 171 030	Sash	92 x 115 mm			

** Central seal must be removed for fixed glazing

GU glazing paddle

Glazing paddle made of robust plastic

Product description

The glazing paddle is made of a robust plastic that can reliably absorb high loads. The special shaping of the tip makes it possible to lift the glass simply and effectively, without problems. The sashes can reliably be moved into the desired position.

Applications

The glazing paddle is the customised aid for correct installation of glass.

Glazing process – Insertion of the block

GU glazing paddle

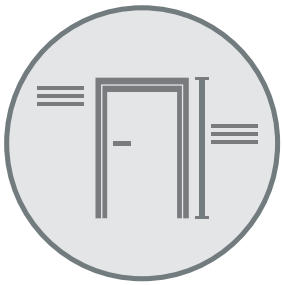
Order information

Designation	Contents	Colour	PU	Article number
GU glazing paddle	–	Blue	1 pc	9-37468-00-0-0

Securing technology for you

confiGUrator

The right products in the right quantity: the practical confiGUrator is an online platform where part lists and hardware sets can be precisely determined. Based on the specifications for the particular project, a technically correct parts list is generated within seconds. The data is determined based on current conditions and fundamental technical principles.

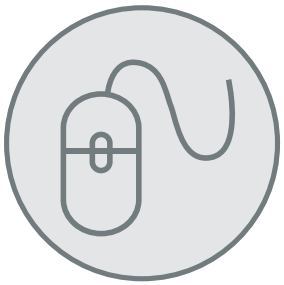


Hardware data service

Individual, accurate and comprehensive: GU's hardware data service generates hardware master data as defined in our catalogues or according to the fabricator's individual requirements. As a result, the customer has access to project-specific hardware data with commercial and technical details.

Tender-Text-Manager

Comprehensive, reliable and technically up-to-date: with the Tender-Text-Manager, the GU group provides its customers with a convenient and effective online tool that allows them to effortlessly compile technical specifications and complete tender text specifications – for all of GU's products.



Customer Information System

Available at the click of a mouse: the Customer Information System (CIS) is an ordering and information system for all GU group products. Customers can use the online platform 24/7 to access important information: from preparing a quotation all the way through to carrying out an availability check in real time, and from placing to tracking of orders.

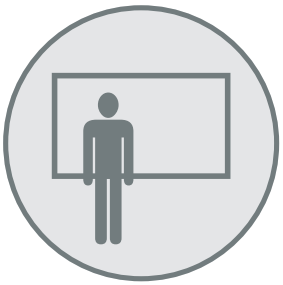
A product on its own is not a solution. The correct level of security, function and cost effectiveness can only be achieved with the right planning and by ensuring correct application. The GU group therefore also applies the systematic thought processes demonstrated in its product range to its service offering. This involves close interlinking of one-to-one expert advice, free online support and a comprehensive programme of technical seminars. GU group offers systematic service, from planning through to assembly

Order by Scanning (ObS)

The ordering system for streamlined logistics: Order by Scanning (ObS) is an easy-to-use scanner ordering system for recording requirements in production, warehouse and administration. The data is scanned via special barcode labels and transmitted to the GU group directly online. The corresponding order number is displayed immediately and the status can be conveniently tracked online.

Logistics

Saves space and time: with the flat and ergonomically-optimised UNI-JET Tilt&Turn hardware packaging, the GU group ensures efficient storage and easy removal of components at the workplace. This makes day-to-day work processes faster and more efficient.



Seminars and training courses

Practical knowledge based on first hand experience: with around 160 events annually GU group offers an extremely wide range of seminars and training courses. The programme includes product innovations and their applications, current architectural trends and standards and directives. Several seminars and training courses are certified and recognised as advanced training courses by the chamber of architects and civil engineers in Germany.

Licences and CE

Maximum security as standard: GU group is a CE licenser for windows and balcony-doors and can undertake the CE certification on your behalf thus saving you time and effort in your day-to-day business.

Standards and regulations at a glance

There is an incredibly wide range of standards and regulations in the field of construction accessories. The most important are listed below and are valid according to the relevant version:

DIN 1961
German Construction Contract Procedures (VOB), Part B: General conditions for implementing construction services

DIN 4102, part 1
Fire behaviour of building materials and building components – Part 1: building materials, terms, requirements and tests

DIN 4108
Thermal protection and energy economy in buildings

DIN 4109
Protection against noise in building construction

DIN 18195, part 4
Water-proofing of buildings – Part 4: Waterproofing against ground moisture (capillary water, retained water) and non-accumulating seepage water under floor slabs on walls, design and execution

DIN 18542
Sealing of outside wall joints with impregnated sealing tapes made of cellular plastics – Impregnated sealing tapes – Requirements and testing

DIN 18545-3
Sealing of glazing with sealing compounds; glazing systems

DIN EN 12207
Windows and doors – Air permeability – Classification

DIN EN 12208
Windows and doors – Tightness against driving rain – Classification

DIN EN 12210
Windows and doors – Resistance to wind load – Classification

EN 13501, part 1
Classification of building products and building types in terms of fire behaviour – Classification using results of tests on the fire behaviour of building products

DIN EN 14351, part 1
Doors and windows – Product standard, performance characteristics – Part 1: Window and external doors without characteristics in terms of fire protection and/or smoke-tightness

Ordinance for modification of Energy Saving Regulation (EnEV)
of 29 April 2009

ift-Guideline FE-05/2
Usage recommendations for windows and external doors, guideline for determining minimum classification as a function of stress – Part 1: Wind resistance, impermeability to driving rain and permeability to air; German Institute for Window Technology (Institut für Fenstertechnik e.V.), ift-Rosenheim

ift-Guideline MO-01/1
Connection of windows to building structure – Part 1: Procedure for determining suitability for purpose of sealing systems; German Institute for Window Technology (Institut für Fenstertechnik e.V.), ift-Rosenheim

IVD Code of Practise No. 9
Injectable sealing compounds in connecting joints of windows and external doors; basic construction principles; German Association for the Sealant Industry (Industrieverband Dichtstoffe e.V.)

IVD Code of Practise No. 4
Sealing joints in building construction with elastomeric sealing tapes using reactive adhesives; German Association for the Sealant Industry (Industrieverband Dichtstoffe e.V.)

IVD Code of Practise No. 5
Butyl tapes; German Association for the Sealant Industry (Industrieverband Dichtstoffe e.V.)

Exclusion of liability/Copyright notice/Image credits

Exclusion of liability

The information provided in this publication consists of product descriptions. This is general information based on our experience and tests and therefore does not take any specific application into account. No claims for compensation can be made on the basis of the product descriptions.

Although we have made every attempt to ensure the information provided here is accurate, it is non-binding. It should be adapted to the respective construction projects, usage and specific on-site demands.

The publication has been compiled to the best of our knowledge. The Gretsch-Unitas group accepts no liability for any errors. The document is subject to modifications during the course of technical developments.

The product images shown in the publication may differ from the actual product.

Copyright notice

Image credits

Page 1	Photo on right: Home Construction kindly provided by Collection E+ / Getty Images
Page 2	With kind permission of: kab planungsbüro für bauleistungen gmbh, Fellbach
Page 6	Photo left: Group of architects working on a project kindly provided by Collection E+ / Getty Images
Page 6	Photo in centre: Construction Worker at Open Window kindly provided by Collection E+ / Getty Images
Page 6	Photo on right: Germany, Bavaria, Nuremberg, Portrait of family in front of house kindly provided by Getty Images
Page 7	Relaxation Image kindly provided by Getty Images
Page 8	Compact Fluorescent Lightbulb, calculator, coin stack and pencil kindly provided by Collection E+ / Getty Images
Page 13	Recycling symbols falling in hand kindly provided by Collection nPine / Getty Images
Page 194	Photo on left: with kind permission of: Werkbild HOBA
Page 194	Photo in centre: Germany, Bavaria, Nuremberg, Portrait of family in front of house kindly provided by Getty Images

Publisher
Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen, Germany
Tel. +49 (0) 71 56 3 01-0
Fax +49 (0) 71 56 3 01-2 93
www.g-u.com

WINDOW TECHNOLOGY
DOOR TECHNOLOGY
AUTOMATIC ENTRANCE SYSTEMS
BUILDING MANAGEMENT SYSTEMS

Gretsch-Unitas GmbH
Baubeschläge
Johann-Maus-Str. 3
71254 Ditzingen
Germany
Tel. +49 7156 301-0
Fax +49 7156 301-77980

BKS GmbH
Heidestr. 71
42549 Velbert
Germany
Tel. +49 2051 201-0
Fax +49 2051 201-9733

GU Automatic GmbH
Karl-Schiller-Str. 12
33397 Rietberg
Germany
Tel. +49 5244 9075-100
Fax +49 5244 9075-599

www.g-u.com

WP00010-04-0-1 11/2018 Printed in Germany

Securing technology for you