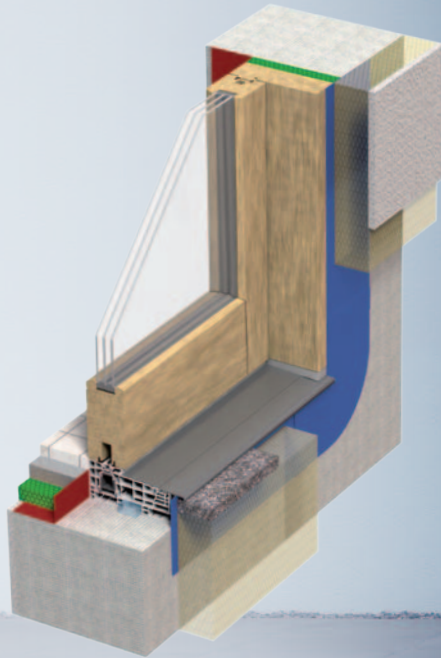




WINDOW TECHNOLOGY  
DOOR TECHNOLOGY  
AUTOMATIC ENTRANCE SYSTEMS  
BUILDING MANAGEMENT SYSTEMS

Photo on right: Photopragger Oliver Schuster, Stuttgart / baukunst philipp haus GmbH



TIMBER, PVC, AND ALUMINIUM WINDOWS AND DOORS

## The new GU-thermostep 204 threshold for Lift&Slide elements

Securing technology for you



# The new GU-thermostep 204 threshold

## Overview of features



For over 100 years, the owner-managed GU Group has been fascinated with the the opening, swinging, closing and locking of windows and doors. The object of further development of the threshold for Lift&Slide elements is not only to introduce a product on the market that is fully fledged from a technical standpoint, but also equally takes the requirements of the fabricator into account – so that ultimately Gretsch-Unitas products can be processed simply, quickly and safely.

### Energy-efficiency, barrier freedom, optimum adaptability

The thermal break of the new GU-thermostep 204 threshold significantly reduces heat flow through the lower connection of Lift&Slide elements which achieves significant energy savings.

### Outstanding thermal characteristics of the new GU-thermostep 204

The fully harmonised components of the threshold produce a complete sealing system which more than satisfies all aspects of energy conservation and associated regulations – with an optimum  $U_f$ -value of  $1.19 [W/(m^2K)]$ . The thresholds are, of course, suited for use with all timber systems and market-leading PVC systems and different patterns. Adaptation to the different profile systems is achieved using individually harmonised components.

- Identical threshold base for timber and PVC doors
- The complete outside (weathering side) is protected by an aluminium profile
- Flexible modular system: threshold, attachment track, variety of drip rails and roller tracks for snap-in attachment
- All roller tracks can be exchanged subsequently
- Anti-moisture foil attached directly to the drip rail
- Suitable for "Accessible Dwellings" to DIN 18040



### With structural connection kit available ex works.

To prevent structural damage due to moisture, it is essential to ensure a professional seal between the window and masonry. The compelling benefit of the new GU-thermostep 204 lies in the fact that the side frames and outer surface of the threshold always run in the same plane. **This means that the outer weather-proofing plane can be installed at a level which is higher than the frame and the threshold which ensures optimum sealing, prevents damage to the structure and provides the fabricator with the necessary peace of mind during installation. The required structural connection kit is included in the Gretsch-Unitas product programme.**



Photographer Oliver Schuster, Stuttgart / baukunst philipp haus GmbH



Energy Efficiency provided courtesy of E+ collection / Getty Images

# The new GU-thermostep 204 threshold

Modular design for alternative solutions



## Reduced installation time with the new GU-thermostep 204

The number of components required has been reduced, the customer receives system-specific prefabricated sealing components when installing the threshold. The attachment track comes in one piece and is equipped with two extrusion joined gaskets on the underside. This minimises installation errors, significantly reduces the use of silicone and improves process reliability.

## Threshold optionally preassembled to required size

The GU-thermostep 204 comes with a service that gives the fabricator a number of options for reducing costs, warehouse and manufacturing overheads and also to eliminate potential sources of error. This service is provided at different prefabrication stages which can be selected.

## The pre-assembled threshold

With this option, a threshold that has been cut to size, predrilled and preassembled can be ordered.

## Threshold pre-assembled to the highest degree of prefabrication

The GU-thermostep 204 threshold is preassembled for the specific system with the highest degree of prefabrication. This prefabricated threshold can be installed on the element directly by the fabricator.

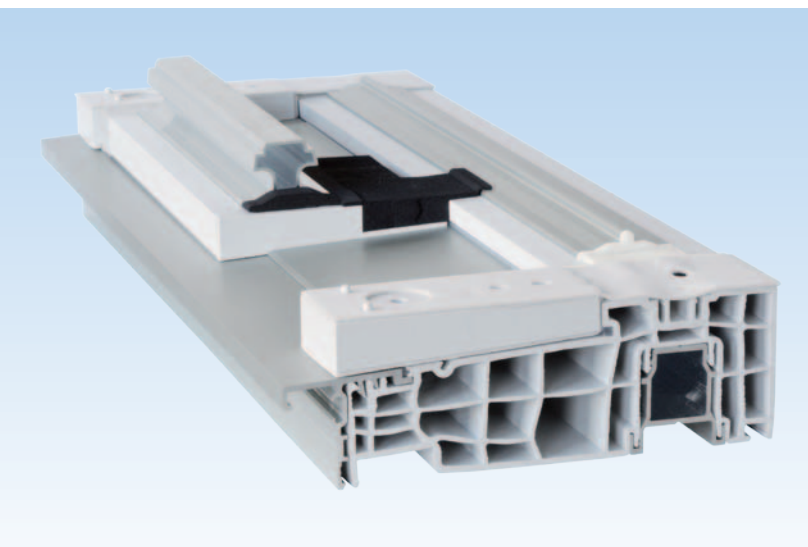
## Preassembled hardware and guide track:

- The Lift&Slide gear is cut to the required length
- The bogies are preassembled together with the connecting rod which has been cropped to the required length
- The upper guide track is cropped to the required length and delivered ready to install with corresponding accessories

## This gives the fabricator the following benefits:

No stock keeping, reduced inventory and costs

- No offcuts and leftover amounts
- Reduced manufacturing time
- Reduced manufacturing costs
- Reduction of errors when cropping to size
- Reduction of errors when calculating and ordering the threshold



Threshold preassembled to the highest degree of fabrication  
(above: the GU-thermostep 204 for Veka Slide 82)



# The new GU-thermostep 204 threshold

## The three levels of balcony-door 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 layer must be air-tight in line with the state of the art (EnEV). It must be less permeable than the external seal, so that moisture in the masonry can move 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.



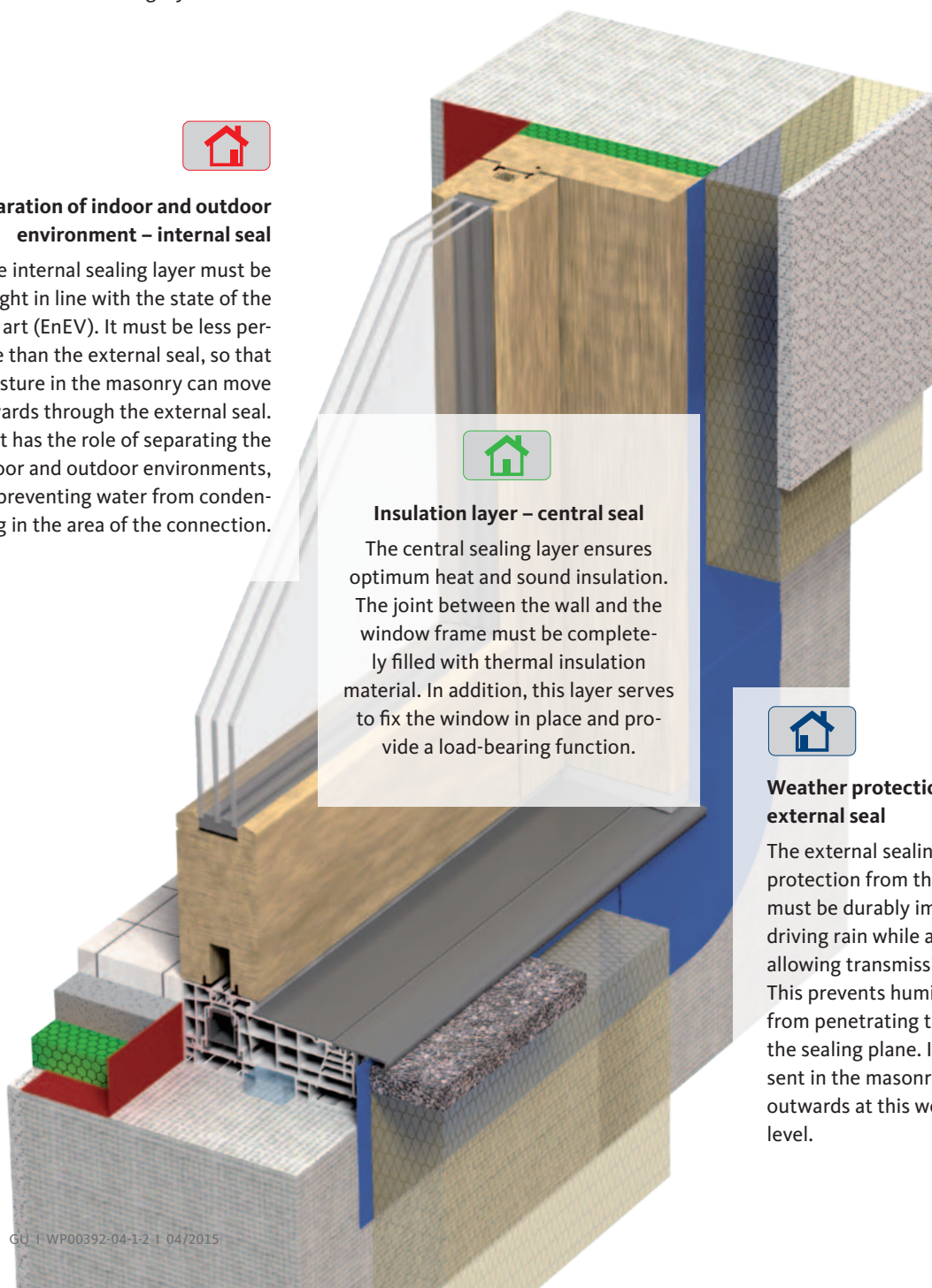
#### Insulation layer – central seal

The central sealing layer 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 layer – external seal

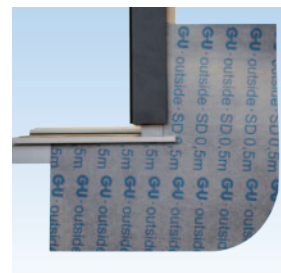
The external sealing layer serves as protection from the weather and must be durably impermeable to driving rain while at the same time allowing transmission of vapour. This prevents humidity and moisture from penetrating the masonry via the sealing plane. If moisture is present in the masonry, this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



## Optimum structural connection

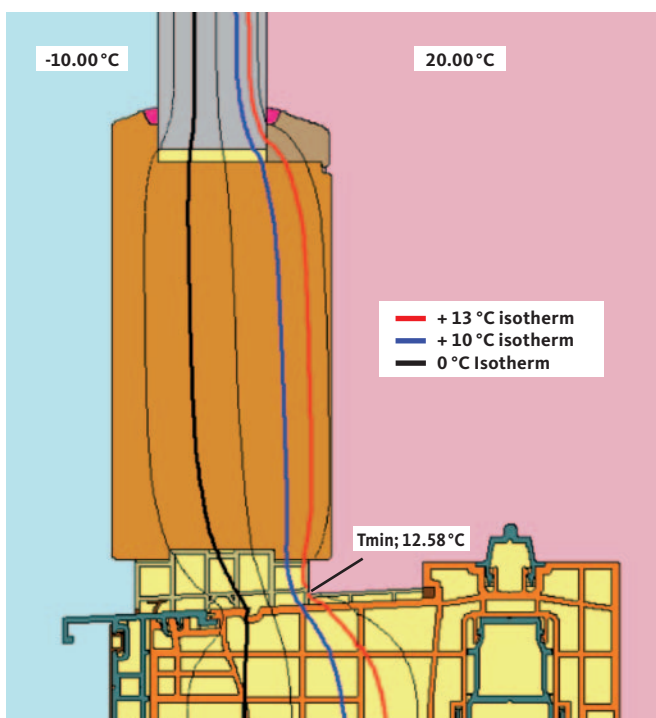
The threshold is one of the most important system components in Lift&Slide elements. It is perfectly adapted to each individual profile system. The structural connection kit provides optimum weatherproofing.

- Applicable for all profile materials and leaf thicknesses from 78 to 110 mm in all customary patterns
- New extension profiles with 20 mm, 30 mm and 100 mm installation heights are mounted flush with the threshold and form, together with the threshold and the frames of the element, a continuous plane on the inside and on the outside
- To install the threshold, the customer receives system-specific prefabricated sealing components which are used to seal all connections or contact planes
- There are two extrusion joined gaskets on the underside of the attachment track which significantly reduces the installation times and use of silicone
- The structural connection kit contains all the necessary sealing components to ensure fast and secure installation, and also optimum connection of the GU-thermostep 204 to the structure



Top: with every system, the side frames and outer surface of the threshold always lie in the same plane – the basic prerequisite for ensuring an optimum seal.

Left: lateral seal which comes with the structural connection kit



## Energy efficiency or 1.19 [W/(m²K)] $U_f$ value

The thermal characteristics of the threshold have been significantly improved: owing to the significant increase in installation depth and technically sophisticated material combination of PVC and aluminium, the GU-thermostep 204 achieves a  $U_f$ -value which was previously unattainable. This has been reduced considerably from 1.65 [W/(m²K)] for the predecessor model to 1.19 [W/(m²K)].

All requirements of the Energy Savings Ordinance (EnEV) 2012, and also the anticipated future requirements due to the new EnEV, are already met today.

## End caps

These ensure optimum tightness at the ends of the threshold and also serve to enhance its visual appearance, e.g. when using elements in conservatories in which the sides of the threshold may be visible.

# The new GU-thermostep 204 threshold

## Pre-assembly



### Easy, fast and safe installation

With the preassembly service, all long parts of the threshold required for the individual profile system with pattern A or pattern C are cut to the precise length, the drip rail is mounted and fixed with screws. The hole patterns for the corner connecting parts are predrilled depending on the system.

As an option, the threshold can also be ordered ready to use which means the fabricator can mount it directly on the element.

### Hardware components preassembled to highest degree of fabrication: the following ordering options are available

- The Lift&Slide gear is cropped to the required length
- The bogies are preassembled together with the connecting rod which has been cropped to the required length
- The upper guide track is cropped to the required length and delivered ready to install with corresponding accessories

### Customer benefits:

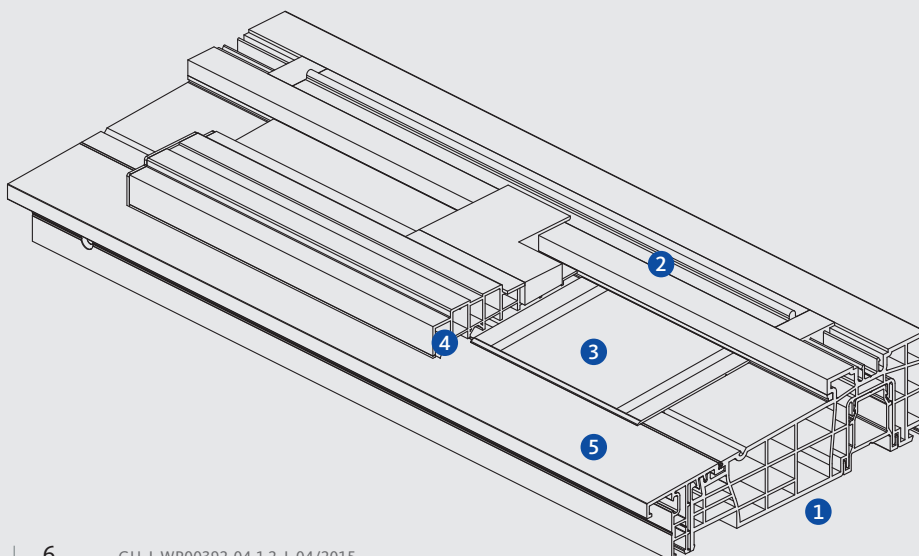
- Delivery to order
- No storage costs
- Pre-mounted components
- No trimming to size – no offcuts
- Reduced installation time
- No production errors



An order number is created for each profile system for pattern A and pattern C respectively. The preassembled profile systems are listed below:

- Aluplast HST 85
- Gealan S 9000
- Profine PremiDoor 88
- Rehau Geneo
- Schüco ThermoSlide SI82
- Veka Slide 82
- 78 mm thick timber sash, 63 mm frame width
- 88 mm thick timber sash, 63 mm frame width
- 90 mm thick timber sash, 63 mm frame width
- 92 mm thick timber sash, 63 mm frame width
- 110 mm thick timber sash, 63 mm frame width

Further profile systems are available on request.



### Pre-assembled to required size

#### Pack includes:

- 1 Base profile of GU-thermostep 204 threshold
- 2 Roller track
- 3 Tread threshold
- 4 Attachment track
- 5 Drip rail (mounted)

#### Not shown:

- Corner connectors set
- Accessories set for attachment track

# The new GU-thermostep 204 threshold

For even more convenience



Elderly Hispanic man in wheelchair looking out window provided courtesy of Blend Images collection / Getty Images



Photographer Oliver Schuster, Stuttgart / baukunst philipphaus GmbH

## "Barrier-free living"

The GU-thermostep 204 threshold can be used individually for "barrier-free living" applications according to DIN 18040 and adapted to many systems and all frame materials. Running tracks with a height of 5 mm and / or an optional Comfort profile reduce the threshold height in the passage area to a minimum – thus facilitating easy access by persons and vehicles. Persons with restricted mobility with walking frames or rollators and also wheelchair bound persons can cross the threshold comfortably and safely. With appropriate planning, a barrier-free threshold can also be retrofitted.

Suitable for  
barrier-free  
construction to



## LED lighting at the threshold (optional)

Outdoors, the lower section of the Lift&Slide element can now be illuminated indirectly – the resulting subtle play of light on patio or balcony doors sets accents. This highlight demonstrates the awareness of Gretsche-Unitas for trends in modern architecture.

A further effect which cannot be underestimated: the lighting provides an additional deterrent at night to potential intruders who may be considering breaking into the apartment via the balcony door. This therefore once again demonstrates that for Gretsche-Unitas its not just down to one individual hardware component.

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