

Glasfaserbeton GFB Fensterbankelement



Window sill element made of high-quality fiberglass concrete with and without cornice base

AREAS OF APPLICATION

Ready-to-install window sill element in exposed concrete look for monolithic masonry, double-skin masonry and in alsecco façade systems

PRODUCT PROPERTIES

- Prefabricated element made of ready-to-process surface with and without lateral edging for optimal reception of joint sealing tapes and for constructive water flow
- High-grade, smooth concrete finish (SB3/SB4 fair-faced concrete quality)
- Water impermeable in compliance with DIN 12390-8 (28d, 1.5 bar)
- Non-combustible, class A1 according to DIN EN 13501-1
- R12 anti-slip when used as a n exit windowsill (threshold)

TECHNICAL DATA

Material	Fiberglass concrete
Design	Height of rear upstand: 15 x 15 mm Maximum length: up to 2.50 m depending on type and projection length Material thickness: 15 mm (special version 20 mm) Inclination: 5°
Accessories	GFB Fensterbank Winkelkonsole V4A (Set) with 0° or 5° Inclination GFB Fensterbankverbindung Riffelblech Fugendichtband SMART Fugenmasse MS Fugendichtband Contact

GENERAL INFORMATION

One-piece window sills with integrated edges (at the side, at the back) are driving rain-proof and can be constructed without a second waterproofing layer.

In the case of multi-part window sills, a second waterproofing layer must always be implemented.

The GFB window sill elements are always installed on the GFB Fensterbank Winkelkonsole for static reasons (2 pieces/window sill).

If the exit window sill (threshold) is used, the window sill can be installed directly on solid substrate or the pressure-resistant XPS Perimeterdämmplatte.

For windows with shading systems such as external blinds or roller shutters, the structure of the fiberglass concrete window sills must be planned. The mounting brackets have been statically certified for the concrete substructure at least C20/C25 up to a projection length of 350 mm (corrosion class CRC III according to DIN EN 1993-1-4:2015-10/Eurocode 3 - Appendix A and earthquake class EC2).

As the fiberglass concrete window sills are frequently installed at the beginning of façade work, they must be protected from soiling and mechanical stress after installation.

APPLICATION INSTRUCTIONS

Substrate pre-treatment

All substrates must be load-bearing, level, clean and free from adhesion-reducing residues.

The substrate must have sufficient bearing capacity to accommodate mechanical fixings such as heavy-duty anchors and dowels.

Application

Fastening the angle bracket:

Before you start, make sure that the GFB Fensterbank Winkelkonsole can be fixed on a flat surface. Unevenness and other deviations in the substrate, which hinder the installation, must be levelled out in advance.

GFB Fensterbankelement type GOD = Winkelkonsole (0° Inclination)

GFB Fensterbankelement type SOD = Winkelkonsole (5° Inclination)

GFB Fensterbankelement type SMD = Winkelkonsole (0° Inclination)

The GFB Winkelkonsole is fixed at the required height by the 2 existing drill holes with the enclosed heavy duty anchors for concrete. To reduce thermal bridges, a 10 mm Thermostop pressure pad, suitable for the GFB Fensterbank Winkelkonsole, is placed between the wall and the bracket.

The GFB Fensterbank Winkelkonsole are installed with a defined edge distance depending on the GFB type, projection length and weight. The required data is specified with the order release in the drawing.

The window sill length of 2.5 m, which is the maximum possible for static reasons, depends on the GFB Fensterbankelement type and the projection length (e.g. type SOD 40/20 maximum window sill length 2.0 m).

Once the GFB Fensterbank Winkelkonsole have been installed, the façade insulation board is bonded up to the height of the top side angle bracket. The area of the angle brackets is left out.

Driving rain-proof connection to the ETICS:

Irrespective of the type of window sill, the GFB Fensterbankelement must be attached to the thermal insulation composite system in a manner that makes it resistant to driving rain. To this end, the Fugendichtband SMART 24/3 is affixed to



the rear upstand of the GFB Fensterbankelement.

Window sill installation during ETICS with one waterproofing layer

In the window sill installation variant during ETICS, the Fugendichtband Contact is placed in its full length both on and to the side of the edging and under the window sill. The joint sealing tapes should not be laid around the corners, but cut to length and butt together. Alternatively, other suitable waterproofing variants can be selected between the window sill and the edging, e.g. closed-cell round cords and joint sealants such as Fugenmasse MS.

Window sill installation after ETICS with second waterproofing layer

For versions with a second waterproofing layer, the Fugendichtband Contact is applied laterally between the ETICS and the edging and sealed with an elastic sealant. In this case, the joint sealing tape must not be applied below the window sill, to allow for the drain level (roll-off of water drops).

One-piece version:

In the one-piece version, the GFB Winkelkonsole (0° or 5° inclination) are encased in façade insulation material.

GFB Fensterbankelement type SOD as window sill

With a one-piece version, the GFB Fensterbankelement type SOD is placed on the GFB Fensterbankelement Winkelkonsolenset V4A (5° inclination) and the position lock.

GFB Fensterbankelement type SMD/GOD as window sill

With the GFB Fensterbankelement type SMD/GOD, the GFB Fensterbank Winkelkonsole V4A (0° inclination) is first encased in façade insulation material.

The Fensterbankelement SMD/GOD are fully bonded with Waterflex Carbon on the horizontal insulation surface. Fitting and attaching the prepared insulation board. With this type of installation, the Fugendichtband Contact is installed on the front side of the insulation board before the GFB Fensterbank is installed. In order to obtain a sufficiently large joint between the insulation board and the GFB Fensterbank for the Fugendichtband Contact, it may be necessary to notch the insulation board in advance. Before applying the base coat, check the installation of the window sill again. Complete the façade insulation system following the general specifications. Separate the underside of the window sill from the base coat or finishing coat by trowel cut.

Measure the insulation at the lateral edging. The later surface of the window soffit (the position results from insulation + base coat + finishing coat) must be flush with the inside of the lateral edging.

Cut out the recess on the measured insulation board for the edging (+ allowance for installation of the joint sealing tape).

GFB Fensterbankelement type GOD/SMD as exit window sill (threshold)

With solid substrates such as masonry and/or suitable, pressure-resistant insulation boards, such as XPS-R Dämmplatte, bonded to solid substrate, the GFB Fensterbankelement can be installed as a threshold directly on this substrate. If this is the case, the exit window sill must be ordered with a profiled surface (R12 anti-slip class). The load-bearing support area must be at least 2/3 of the projection length of the GFB Fensterbankelement (type GOD/SMD). The design variant with R12 slip resistance class must be specified as such in the order.

The load transfer of the GFB Fensterbankelementes in the load case exit window sill (threshold), is transferred into the load-bearing substrate via the insulation material, the adhesive and the building waterproofing. The building waterproofing



must be suitable for this. An angle bracket fastening for the load case exit window sill must be statically separately verified (waterproofing of the penetration points according to DIN 18533 required) – the load transfer is only verified on solid and suitable, pressure-resistant substrates.

Multi-part version:

GFB Fensterbankelement type SOD as window sill

With two-part or multi-part window sills, the GFB Fensterbankelement type SOD is bonded with Fensterbankkleber SMART at the second waterproofing layer with strands running parallel to the flow direction. There are two variants available for the creation of a second waterproofing layer:

- a) 2nd waterproofing layer with sealing slurries
- b) 2nd waterproofing layer with window sill wedge

The window sill wedges or façade insulation boards are cut out in the area of the GFB Fensterbank Winkelkonsole. Unavoidable joints in the connection to the angle bracket are either filled with the same type of insulation material or foamed for joints up to 5 mm wide. Joints in the area of the angle bracket are then covered with the adhesive sealing foil to ensure the second waterproofing layer. The sealing foil is opened in the area of the position lock, then the connecting edges in the area of the position lock (screw, mandrel) are closed again with Fugenmasse MS or a suitable sealing washer to protect against driving rain. Further information of the technical documentation and the construction details of the second waterproofing layer, window sill wedge, angle brackets, etc. can be found on the alsecco website.

Joint execution for butt jointed window sills

For multi-part GFB Fensterbankelement, a building construction joint in accordance with DIN 18540 with a 10 mm joint must be included in the calculation for the joint area. Formation of the joint with closed-cell round cord and Fugenmasse MS. After applying the final coating (finishing coat, hard coverings), the protective cover for the GFB Fensterbankelement provided by the customer can be removed.

Weather conditions

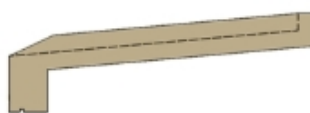
There cannot be temperatures below + 5 °C during application and drying.
Do not apply in direct sunlight.

SKETCHES

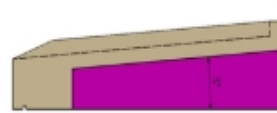
Typ GOD



Typ SOD



Typ SMD



PACKAGING INFORMATION

Information	<p>GFB Fensterbank are produced as a one-piece mould with lateral edging. The profile geometry must be inspected and approved by the customer.</p> <p><u>GFB Fensterbank type GOD</u> is mainly used as a threshold and therefore has a horizontal underside (without insulation) to bond the threshold to a pressure-resistant base. There are different cornice variants. The rear height is always 50 mm (weight with a projection of 275 mm approx. 18 kg/m)</p> <p><u>GFB Fensterbank type SOD</u> is the typical window sill with 5° inclination (without insulation) and is available in different cornice variants (weight with a projection of 275 mm 10 to 18 kg/m depending on the cornice variant)</p> <p><u>GFB Fensterbank type SMD</u> is a window sill with 5° inclination and a pressure-resistant insulation with a horizontal underside. This window sill can also be used as a threshold (weight with a projection of 275 mm 14 to 18 kg/m depending on the variant)</p> <ul style="list-style-type: none"> • delivery length L_{FB} per element is 2500 mm (maximum permissible length - the type statics must be observed) • Projection length T_{FB} from 225 mm to 350 mm / in 25 mm increments • Minimum thickness is 15 or 20 mm
Color	Warm white, Concrete grey, Jura grey, Blue grey
Packaging unit	On special transport frame
Surface	Smooth, sandblasted, fine sandblasted (For sandblasted surfaces, please observe general instructions)

OTHER INFORMATION

Information on safety	Not a hazardous material
Transportation	<p>The fiberglass concrete window sills are transported on a special transport rack or a pallet with spacers as well as side edge protection, if necessary. The pallets or the transport frame must be stored in an area that is protected from moisture and sunlight.</p> <p>For short-term outdoor storage, the pallet packaging must be opened to prevent the formation of condensation water. In addition, the pallet, transport rack or the fiberglass concrete window sill must be protected with a suitable foil, as the packaging foil does not provide sufficient weather protection. The fiberglass concrete elements must always be turned up vertically and transported vertically. Keep dry, cool, horizontally and protect from sunlight and temperatures > 35 °C.</p>
Waste code	17 01 01 (class II waste disposal, household and construction waste disposal)
Construction details	Special cuts, e.g. notches, round window sills or straight lateral edging etc. on request.
General information	Compliance with the instructions relating to Merkblatt "Oberflächen von

GFB-Bauteilen" issued by the Fachvereinigung Faserbeton e.V. (Trade Association Fiber-Reinforced Concrete) as well as the information sheet DBV-Merkblatt "Sichtbeton Fassung 2015" is vital as regards the quality of the finish and paint. Rougher surfaces have a higher tendency to soiling than smooth surfaces.

Cleaning and care

In the design variant as an exit window sill (threshold) with a non-slip surface, the exit surfaces must be regularly cleaned (e.g. removal of leaves or similar) or cleaned. The slip resistance can be reduced by cleaning or care products. When using the Detergents pay attention to the selection and their dosage (e.g. detergents must not attack the profiled concrete surface). The suitability of the cleaning agent must be checked beforehand on a test surface.

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The above information is based on many years of experience and tests and is provided by us to the best of our knowledge. Such information applies in addition to our application guidelines. However, we cannot accept any responsibility for the correctness of our recommendations on account of wide variety of substrates and of on-site conditions and applications which are outside our control. Any recommendations provided by our employees and deviating from these documents must be given in writing. We reserve right to make any changes on account of technical progress or building regulations. Your technical advisor will be pleased to provide the relevant product data sheets.

