Data Sheet

"TwoSafe" Window Sill System

consisting of special TC sliding end element, profile connector, noise suppression coating, factory ap-plied sealing tape, wall anchor, etc.

Field of Application

For perfect solution of structural requirements in ETICS system. Can be used in new and old buildings, regardless of whether existing window sills are removed or knocked off flush with the facade. To meet modern building requirements with little or no roof projections, windows projecting into the insulation layer and the resulting low soffit depths, continuously increasing insulation layer thicknesses, etc. using the right window sill solution be-comes more and more important.

Properties

The positive effects of thermal insulation compound systems depend on the interaction between numerous individual components. One important component is the window sill. The "TwoSafe" window sill system is perfectly adjusted to the structural requirements in Brillux ETICS systems and meets in particular the impact rain proofness requirement (first Safe). In addition, the system can compensate length changes of the aluminum window sill which is due to varying temperature conditions (second Safe). In this way, moisture damage and compression cracks in window sill areas are avoided. Tested by the Institut für Fenstertechnik in Rosenheim (Institute of Window Technology), test report No. 106 31266.

Window Sill 3557

Aluminum window sill

Field of Application

Aluminum window sill to provide an optimum solution to construction requirements in the Brillux ETIC system.

Properties

- Visually very attractive thanks to a 40 mm high elevation in the front view
- With factory-applied sealing tape
- Extremely easy installation thanks to universal wall anchors
- Made from anodized aluminum, as a result, resistant to corrosion
- An individual solution for every facade insulation thickness is possible thanks to staggered overhangs

Material description

Colors

0001 silver anodized
0002 dark bronze anodized
0003 white
0004 anthracite grey (RAL 7016)
Other colors available upon request.
Comply with additional instructions in Storage and Note.

Material

Aluminum, anodized or stove-enameled

Screw angle

95° (Slope angle = 5°)

Screw web

Height 25 mm

Long hole cut-out

4.2 x 7.2 mm at a distance of approx. 320 mm at screw web

Factory applied sealing tape

Sealing tape applied in the factory across the whole length of the screw web, width 24 mm. Can be compressed to 1.5 mm easily. Impact rain and wind proof up to 4 mm.

Projections

50, 70, 90, 110, 130, 150, 165, 180, 195, 210, 225, 240, 260, 280, 300, 320, 340, 360, 380, 400 mm [1] Other projections upon request.
[1] Up to 400 mm extruded projection, > 400 mm available in bent form. Due to the different manufacturing process, the bent window sills differ in appearance from the extruded ones (especially in the area of the drip edges).

Chamfer height

40 mm

Lengths

Individual length max. 6 m

Packaging

Individual requests made to measure. On request, numerous special designs are available, e.g., half-rounded window sills (for portholes, for example).

TS sliding end element 3800

compensates for thermally induced changes in length

Field of Application

The ideal solution for construction requirements in the ETIC system. New or old buildings, regardless of whether an existing window sill has been removed or knocked off flush with the facade.

Properties

- Thanks to the integrated EPDM seal and circumferential flap, water entry is prevented (first Safe; no moisture damage).
- Additional sealing is therefore not required
- Thermally-induced changes are safely compensated for by the unique design of the TwoSafe Sliding End Element 3800 (second Safe; no buckling cracks).
- Impermeability to driving rain tested in accordance with EN 1027: 2006-06, verified up to 1,200 PA

Material description

Colors	0001 silver 0002 dark bronze 0003 white 0004 anthracite grey (RAL 7016) Other colors available upon request
Material	Aluminum, anodized or stove-enameled
Width	22 mm
Height	18 mm
Length	50–400 mm
Packaging	1 pc per window sill side

Profile Connector 3559

For connecting individual window sills with overlengths

Field of Application

For connecting individual window sill end pieces in case of overlengths

Properties

- Profile connector made of anodized aluminum
- For window sill overhangs from 50–400 mm
- With seal and perforation for screwing on

Material description

Colors
0001 silver
0002 dark bronze
0003 white
0004 anthracite grey (RAL 7016)
Other colors available upon request

Material
Aluminum, anodized or enameled

Length
Matching the window sill projection

Article no.:	for projections:
3559.0001	50 to 130 mm
3559.0002	140 to 180 mm
3559.0003	195 to 360 mm
3559.0004	380 to 400 mm

Packaging
1 pc./pack

Profile Connector 90° for inner corners 3502

For connecting individual window sills at interior corners

Field of Application

For connecting individual window sill end pieces at interior corners.

Properties

- Anodized or stove-enameled butt connectors
- For interior corners with 90°
- For window sill overhangs from 50–400 mm

Material description

Colors
0001 silver
0002 dark bronze
0003 white
0004 anthracite grey (RAL 7016)
Other colors available upon request

Material
Aluminum, anodized or stove-enameled

Lengths
Matching the window sill projection

Article no.:	for projections:
3502.0001	50 to130 mm
3502.0002	150 to 180 mm
3502.0003	195 to 360 mm
3502.0004	380 to 400 mm

Packaging
1 pc./pack

Profile Connector 90° for outer corners 3503

For connecting individual window sills at exterior corners

Field of Application

For connecting individual window sill end pieces at exterior corners

Properties

- Anodized or stove-enameled profile connectors
- For outer corners with 90°
- For window sill overhangs from 50–400 mm

Material description

Colors
0001 silver
0002 dark bronze
0003 white
0004 anthracite grey (RAL 7016)
Other colors available upon request

Material
Aluminum, anodized or stove-enameled

Lengths
Matching the window sill projection

Article no.:	for projections:
3503.0001	50 to 130 mm
3503.0002	150 to 180 mm
3503.0003	195 to 360 mm
3503.0004	380 to 400 mm

Packaging
1 pc./pack

Noise Suppression Coating 3561

Noise suppression underlay to prevent drum effects

Field of Application

Insulating underlay to avoid drum effects, e.g., due to heavy rain.

Properties

- Self-adhesive
- Black
- Available in three widths

Material description

Color schwarz

Width 30, 50 or 80 mm

Size

Article no.:	for projections:
3561.0030	50 to 90 mm
3561.0050	110 to 150 mm
3561.0080	165 to 400 mm

Packaging 1 pc./pack

Screws 3563

For securing the window sill during mounting

Field of Application

For securing the window sill during mounting, e.g., on wooden windows.

Properties

- Screws made from V2A
- With plastic caps for covering and sealing

Material description

Colors	0001 grey 0002 brown 0003 white 0004 anthracite grey (RAL 7016
Length	22 mm
Packaging	100 pcs./pack

Wall Anchor 3569

For stabilizing Window Sill 3557

Field of Application

Wall anchor made from untreated aluminum for bridging the insulation material and for stabilizing the Window Sill 3557 in the TwoSafe window sill system.

Properties

- Wall anchor made of untreated aluminum
- Available in 4 different sizes
- Can be flexibly adjusted to the window sill overhang

Material description

Color Aluminum, natural

Size

Article no.:	for projection *:
3569.0001	90 to 110 mm
3569.0002	110 to 140 mm
3569.0003	140 to 260 mm
3569.0004	260 to 360 mm

Other sizes available upon request.
(* projection = total of: thickness of glue layer + thickness of insulation layer + reinforcement + top coat + drip edge should project by approx. 40 mm)

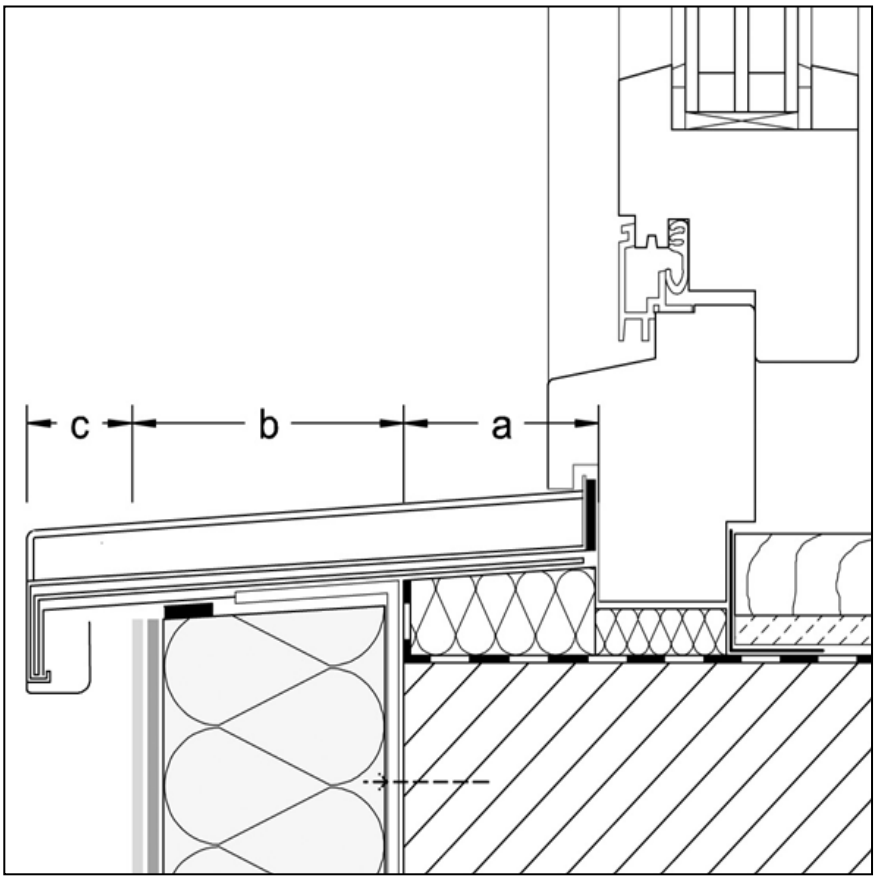
Packaging 1 pc./pack

Determination of window sill dimension

First, measure the length and projection of the window sill according to the insulation thickness to be applied. The drip edge should project by approx. 40 mm. The window sill, including the lateral edging is to be integrated in the ETICS system such that the lateral TS sliding end element 3800 engages in the soffit and is in line with the plaster of the ETICS top coat. Ensure sufficient inclination (≥ 5°) to ensure water will flow off.

Order depth (projections)

The order depth of the window sill is calculated, considering the soffit, if applicable, the glue layer thickness, the insulation layer thickness, reinforcement and top coat as well as a projection (drip edges) of at least 4 cm.



a) = soffit depth
b) = thickness of glue layer
+ thickness of insulation layer
+ reinforcement
+ top coat
c) = drip edge projection

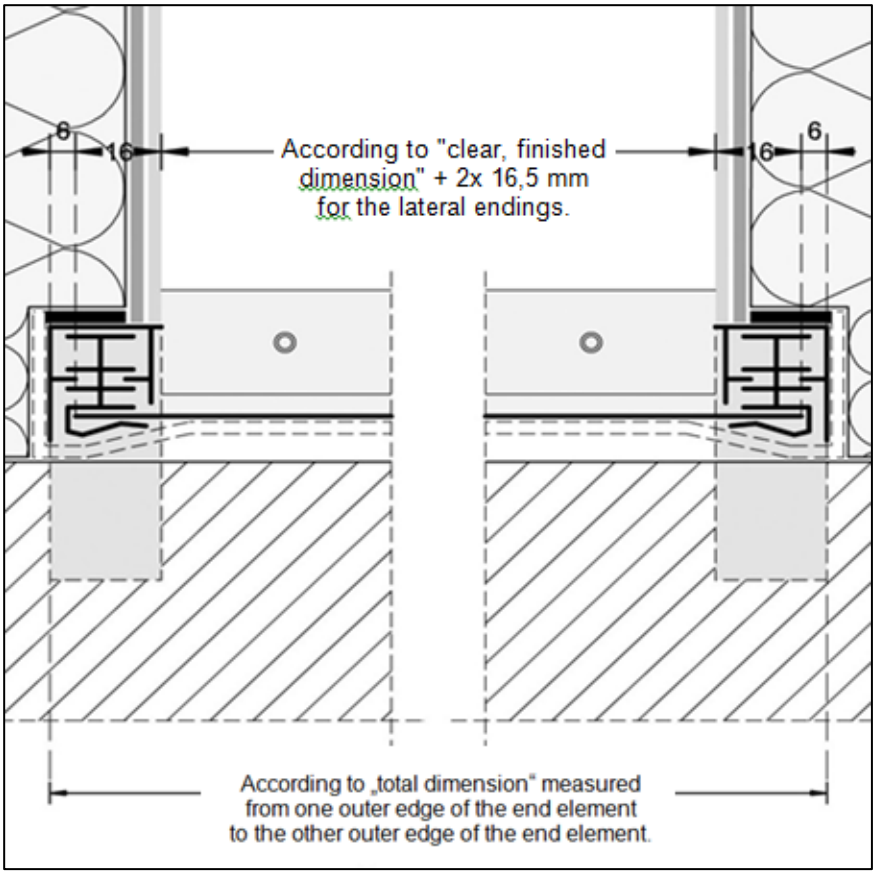
Determination of window sill dimension

Order length

Generally, there are two ways you can determine and specify the order length of the window sill. In addition, note the information provided in "Window sills > 3 m" when it comes to determining the length.

According to "clear, finished dimension"
In this case the "clear dimension" resulting after completion of the insulation layer, reinforcement and top coat is specified (mark on window frame, if applicable). 2x 16,5 mm must be added to this value to obtain the order length (for TS sliding end elements 3800).

According to "total dimension"
The dimension of the window sill, including TS sliding end elements 3800 (from outer edge to outer edge) is specified as the order length. When the sills are cut to size in the factory, the projection of the sliding end elements (approx. 2x 5,5 mm) is considered automatically.



Use

Installation

Before starting the installation, remove approx. 3 cm of the protective foil from the upper side of the window sill and slip on the TS sliding end elements 3800 on both sides. In order to prevent the encompassing butt strap from being damaged, slip on the TS sliding end elements uniformly parallel (don't cant).

To avoid drum effects, e.g. by heavy rain, the window sill should be provided with a noise suppression coating. Noise Suppression Coating 3561 is fixed on the underside of the window sill before installation. If the noise suppression coating is narrower than the window sill, the side facing the window is covered. Directly before installation, slowly remove the two transport protection foils from the factory applied sealing tape at the screw web, align the window sill horizontally and fix it using Screws 3563, incl. cover caps. In any case, make sure that existing drainage slots in the window sill are not closed nor covered by the window sill installation.

For a window sill projection greater than 150 mm, wall anchors must always be installed for stabilization. These must be screwed into a solid, mineral substrate. The lateral distance from the anchor to the TS Sliding End Elements 3800 or Profile Connectors 3559 must not exceed 40 cm on either the right or left. Install the wall anchors at intervals of max. 60 cm. For insulation layers ≤ 10 cm thick, the intervals may be up to max. 100 cm. The required number of wall anchors for various window sill lengths is as follows

80 cm	1 wall anchor
140 cm (max. 180 cm)	2 wall anchor
200 cm (max. 280 cm)	3 wall anchor
260 cm (max. 300 cm)	4 wall anchor
300 cm	5 wall anchor

The values in parentheses refer to the insulation layer thickness ≤ 10 cm.

In the connection area underneath the window sills, it is important to ensure that the balustrade is sufficiently well insulated and that thermal bridges are minimized. Depending on the installation situation of the window and window sill, it may be necessary to insulate the top side of the balustrade, to bevel the insulation boards at the angle of the window sill and/or to fill the cavity below the window sill with insulation wedges or PUR Filler Foam 3555. Before installing the insulation boards, ETICS Sealing Tape 3796, type 0002 must be applied correctly circumferentially for 3–4 mm joint widths (below the window sill and above and at the sides of the TS Sliding End Elements). In this context, the subsequent reinforcement layer and plaster coating must be applied such that they are not in contact with the TS Sliding Ed Elements. A separating cut must be made to avoid this. For movement-absorbing board profiles (TS sliding end elements), the distance between the board profiles and the reinforcement, including the plaster coating, must be at least 1 mm. For nonmovement-absorbing board profiles, this distance must be at least 3 mm.

After completion of all work, remove the protective foil from the window sill. Caution: Do not use a cutter knife!

Use

Window sills > 3 m

Window sills exceeding a length of 3 m must be divided at regular distances, or as agreed with the site management, and connected by means of a joint connector. At the joint connector, an air gap of approx. 2,5 mm is to be provided on both sides to allow for length changes. The length change of aluminum at a temperature difference of 50 °C is approx. 1.2 mm/m. The installed joint connectors with factory applied sealing tape are to be screwed to the window via the hole.

Storage

Store window sills on wooden storage beams (aligned in longitudinal direction) in horizontal position. Protect against soiling, wet and sun impact. Window sills coated in special colors and in standard color white (powder coated) must be properly ventilated to prevent formation of condensation water. To that end, open the packaging at the front and rear end. The packaging must enable sufficient air circulation and must not remain on the powdercoated surface for too long.

Notes

Window sill coating

Anodizing/powder coating is provided on the upper side of the window sill. For production reasons, full, closed coating of the underside cannot always be guaranteed. This shall not give rise to any complaints.

Avoid moisture under the covering foil

During storage and after installation, protect window sills in special colors and in standard color white (powder coated) against formation of condensation water under the transport and cover foils. Moisture impact under the foils can result in matt spots and color changes. After installation, the foil packaging is to be replaced by plasticizerfree protection foil without air inclusions. Alternatively, the window sills may be protected by suitable covers. These covers must be removed and provided again for the individual facade coatings.

Custom-made products

In addition to the standard de-signs of the window sills, numerous special designs are available upon request, e.g. halfround window sills (for "bull's eye", for example), joint connectors for inside and outside corners, wall covers, etc.

Perforation in TS sliding end element

The TS sliding end elements may also be delivered with a small perforation at the end for production reasons. This is not a reason for complaint because the perforation is located behind the sealing layer in the base area after installation. The tightness is also completely ensured despite the perforation.

Balcony Exit Bench 3495

To complement the ETICS window sill range, Brillux also offers the Balcony Door Sill 3495 made of styro light concrete with nipple plate cover. These sills are the ideal custom made solution for balcony and terrace door sills. For more information on the installation of the window sills, refer to the ETICS detail drawings.

Further specifications

Follow the instructions on the data sheets of the products used.

Remark

This Data Sheet is based on extensive development work and years of practical experience. The translation corresponds to the current German version, in compliance with the German laws, regulations, standards and guidelines. Its content does not constitute a contractual legal relationship. The user/buyer is not released from the responsibility of checking our products to ensure they are suitable for the intended application. In addition, our general terms of business apply.

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