



Professional Window Mounting with greenteQ^{Q01}

EDITION I / 2011



greenteQ – VBH's powerful own brand.

High quality. Excellent price-to-performance ratio.

Simply everything - we underscore this part of the brand promise with our proprietary brand greenteQ. With greenteQ, we offer a wide product range, characterised by high quality, an excellent price-to-performance ratio and an independent brand presence.

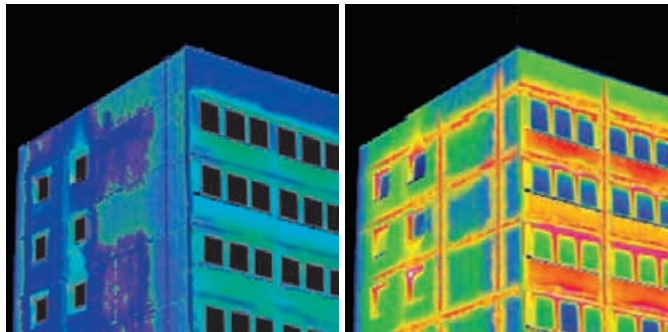
The brand name is formed from our company colour green, the word technology and Q, which stands for our quality standards. The greenteQ product range is a logical extension of our current programme of strong brand products, which continue to form the basis of our portfolio. greenteQ provides us the necessary independence in the market.

On the following pages, we present our carefully selected greenteQ product range for everything related to windows. Among other things, this includes fasteners for window production, window mounting and sealing between the structural connection and window frame.

Q The quality of the window is decided during installation

To prevent damage in the connection area, the integration of windows and exterior doors in the building shell must be planned.

The professional design of the connecting joints, i.e. the design, joint geometry, mounting, insulation and sealing, are therefore very important. The window's suitability for use requires a design that complies with requirements and a flawless connection that fully satisfies the requirements profile.



The humidity and temperature inside a house is often greater than outside. The airtight construction required by the current state of the art of the building shell increases the risk of mould forming. Moisture-enriched air can penetrate poorly sealed window joints between the window frame and wall. As a result, the warm air cools and precipitates as condensation in the joint and on the cool areas of the profile and the embrasure. The prolonged effect of condensation can cause damage to the surfaces, constructions and exterior wall. The condensation cannot escape and the permanent presence of moisture damages the masonry. The risk of mould forming in the construction is correspondingly high. On the other hand, insufficient sealing can force the air out unhindered, which results in a loss of energy.

This can be prevented through professional mounting with high-quality, state-of-the-art products. Please refer to Section 6 of EnEV (German Energy Savings Act) 2009, Paragraph 2 as well as the "Leitfaden zur Planung und Ausführung der Montage" ("Guidelines for planning and execution of mounting"), of the RAL-Gütegemeinschaft Fenster und Haustüren e.V.

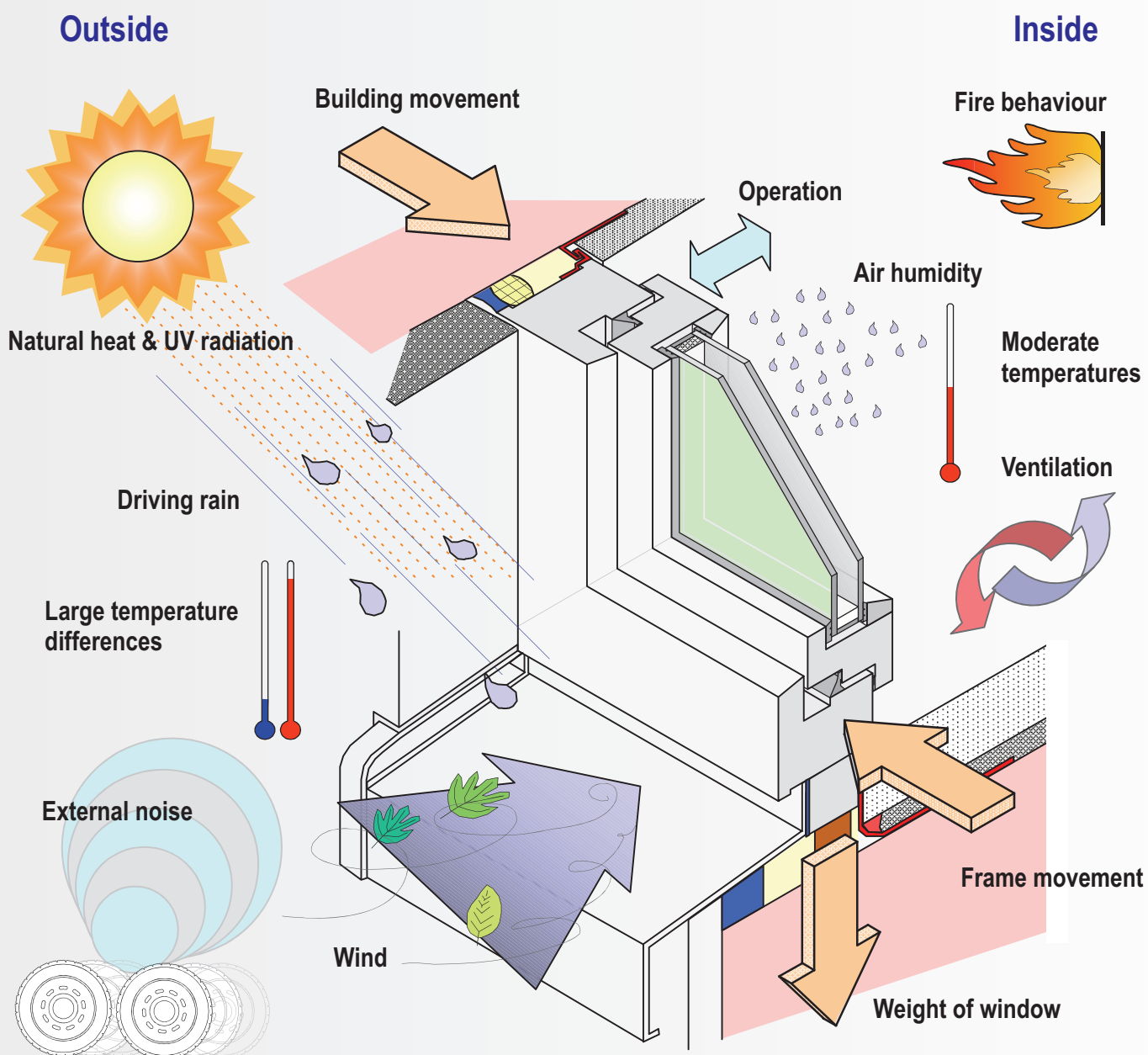


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Note:

The instructions for use, service and product details as well as other technical information for our greenteQ products are general guidelines. These serve only to describe the properties and performance features of our products and do not constitute a guarantee as per Section 443 of the BGB (German Civil Code). Due to the variety of possible applications, it is incumbent upon the user to test whether or not it is suitable for the desired application. Technical application advice provided by us verbally, in writing or through tests is for your information only and is absolutely non-binding. We assume no responsibility for mistakes or printing errors.



Schematic diagram showing elements affecting an installed window

Source: ift Rosenheim



Seals



More from our product range?
In our VBH Mounting Catalogue

Q Sealing around the window

Windows contribute to a 20 to 25 percent improvement in energy consumption. Here, the window joint and its permanent, professional sealing play an important role. The joint acts as a connecting member between the window and the building structure, which means that it affects the energy consumption and air-tightness of a building. Proper sealing of windows is equally as important in old and new buildings.

The connection between the building element and the masonry must fulfil various functions. When sealing a window, one should always work according to the principle: "more airtight inside than outside" (see "Guidelines for planning and executing the mounting of windows and house doors", page 32).

Air-tightness and protection against driving rain must be carefully planned. The increased requirements regarding embrasures, windows and shutters must be taken into consideration. The interior connections must be airtight, while the exterior connections must protect against driving rain. The three layers must fulfil their function without interfering

with or cancelling out the function of the other layers.

Proper sealing involves the interaction of the external, middle and internal sealing layers. All three layers must therefore be considered as an entire system and must already be taken into consideration in the planning phase.

Special care must always be taken in the following steps:

- Installation and mounting of the element
- Filling out the hollow space with insulation material to the greatest extent possible
- Sealing of the space and exterior joints with appropriate sealing systems



External layer – weather protection layer

It is designed to protect against driving rain and is open to diffusion. It prevents the penetration of moisture and water into the masonry. Moisture in the masonry can be drained to the outside through this layer in a controlled manner.



Middle layer – functional layer

The middle layer has thermal and noise protection properties. In monolithic masonry, it ensures thermal and noise protection for the functional layer with the joint insulation. The mounting and load transfer of the window is applied at this point and transfers all static and dynamic loads to the structure.



Internal layer – interior and exterior climate

The internal seal must be designed to be airtight and diffusion-inhibiting, since it serves as a barrier between the interior and exterior climate. This ensures that warm, moist air from the interior cannot penetrate the joint area and condensation cannot form in the connection area.



3-layer sealing

Where once three separate products would have been needed, now just one is enough. With its special construction, the greenteQ VARIO 3 tape combines the functions of all three sealing layers. On the outside, the greenteQ VARIO 3 tape ensures protection against driving rain, providing driving rain resistance at pressures of up to 600 Pa. The middle layer provides thermal and noise insulation. On the inside, the tape is airtight and diffusion-inhibiting.



Content

- Product overview: seals
- Diagrams of installation situations
- Technical explanations

EXTERNAL



greenteQ Joint-sealing-tape 300

- Driving rain resistance of ≥ 300 Pa
- Building material class B2



greenteQ Foil tape outside

- Driving rain resistance of ≥ 600 Pa
- Elastic and can be plastered over



greenteQ round cord
Available soon!



greenteQ Joint-sealing-tape 600

- Driving rain resistance of ≥ 600 Pa
- Building material class B1



greenteQ Foil tape DUO

- Non-woven fabric combination
- Variable S_d -value



greenteQ Adhesive film

- UV stabilised for 6 months
- $\pm 25\%$ total deformation

MIDDLE



greenteQ 1C Window GunFoam B2 750 ml

- Thermal and noise insulation up to 60 dB
- Temperature resistant from -40°C to $+100^\circ\text{C}$



greenteQ 1C GunFoam XXL B2 500ml

- High yield (40-45 litres free-foamed)
- Can be processed above -5°C (ambient temperature)



greenteQ 1C GunFoam B1 750 ml

- Building material class B1
- Flame-retardant



greenteQ 1C Winter-GunFoam B2 750 ml

- High yield (53 litres free-foamed)
- Can be processed above -5°C (ambient temperature)

INTERNAL



greenteQ FA-Silicone Alcoxy

- Suitable for window sealing
- Edge seal compatibility



greenteQ Foil tape inside

- Moisture- and diffusion-inhibiting to the inside
- Elastic and can be plastered over



greenteQ round cord
Available soon!



greenteQ FA-Silicone Oxy

- Suitable for window sealing
- Highly resistant



greenteQ Foil tape DUO

- Non-woven fabric combination
- Variable S_d -value



greenteQ Adhesive film

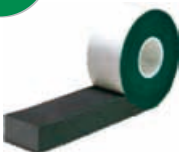
- UV stabilised for 6 months
- $\pm 25\%$ total deformation



greenteQ A-Acrylic


- Suitable for interior use
- Can be painted over

3-layers



greenteQ VARIO 3

- Driving rain resistance of ≥ 600 Pa
- Building material class B2



greenteQ VARIO SBA

- Driving rain resistance of ≥ 300 Pa
- Building material class B2

EXTERNAL
I

MIDDLE
I

INTERNAL
I

3-layers

- Q Highest sealing performance in rainy or stormy weather
- Q Energy-saving with proper installation
- Q Optimum drying effect
- Q 3-layer sealing in one step
- Q Cost savings through reduced time expenditure

Find the right product

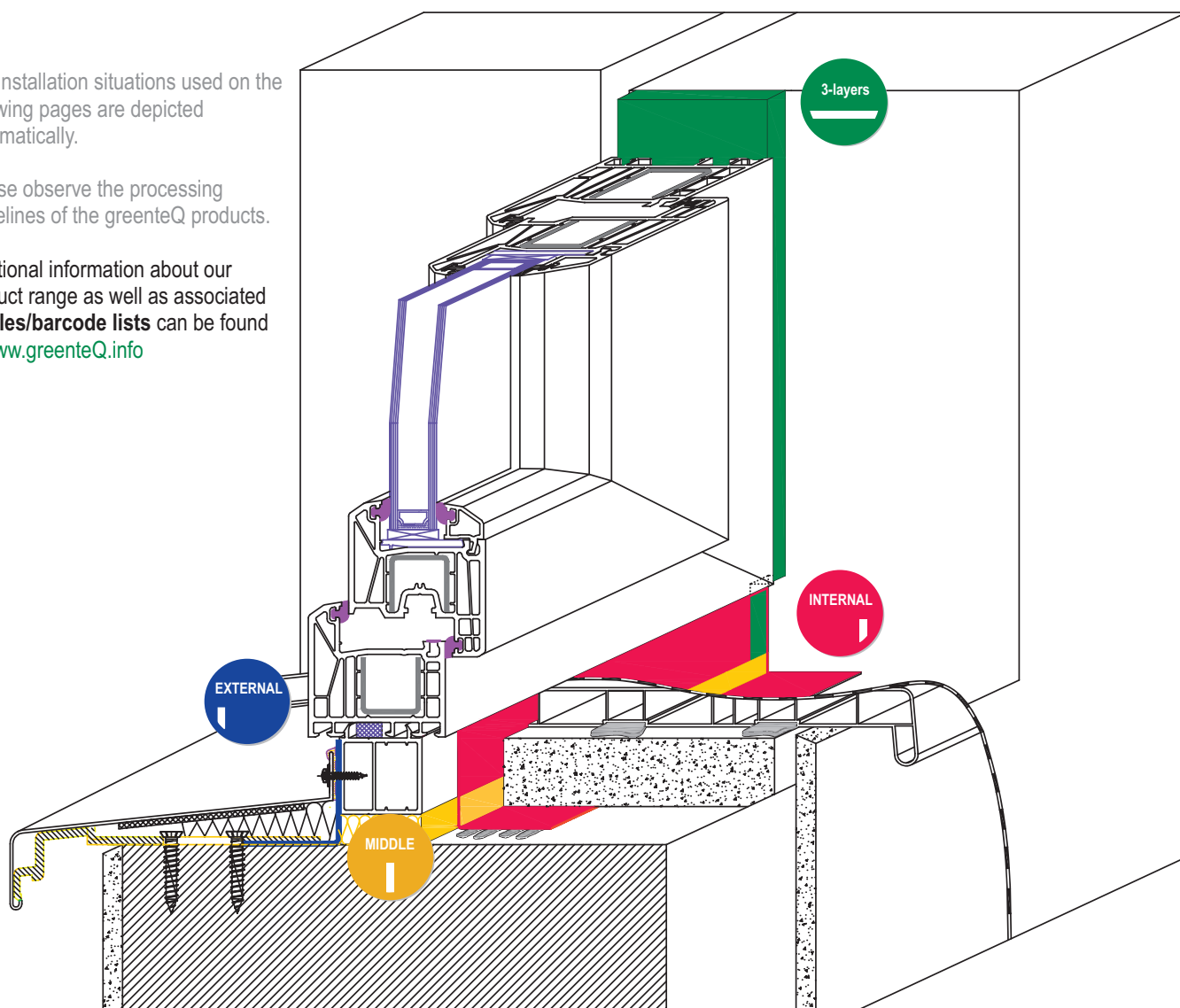
The greenteQ colour system guides you:

On the following pages, you can quickly and easily find the right product for your respective installation situation in the corresponding level.

The installation situations used on the following pages are depicted schematically.

Please observe the processing guidelines of the greenteQ products.

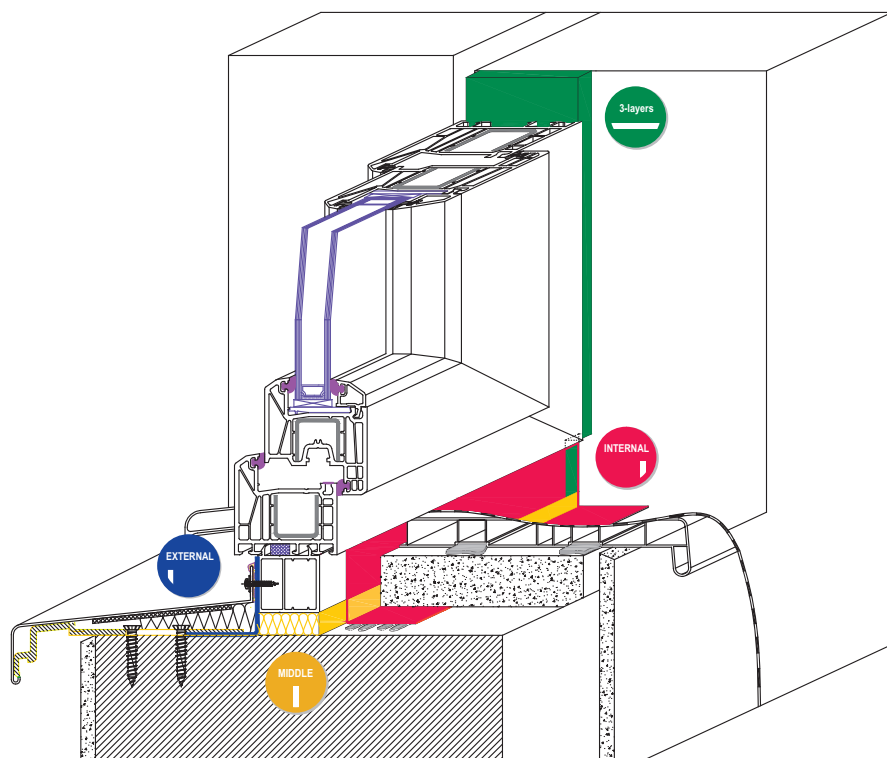
Additional information about our product range as well as associated **articles/barcode lists** can be found at www.greenteQ.info



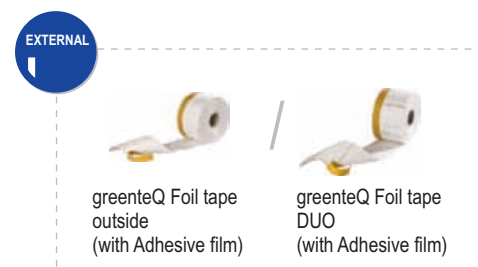
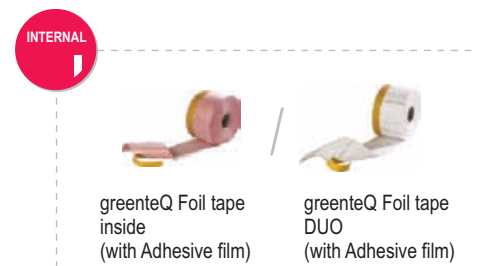
NEW BUILDINGS

Monolithic masonry

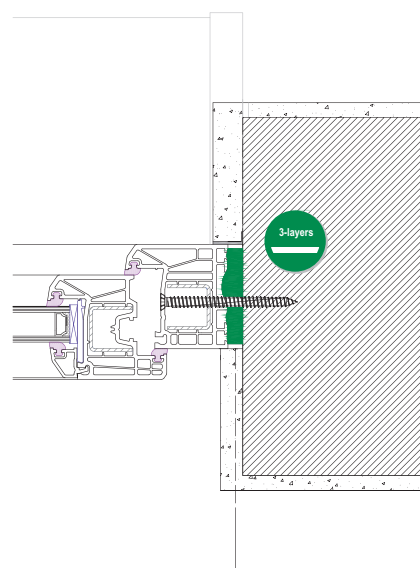
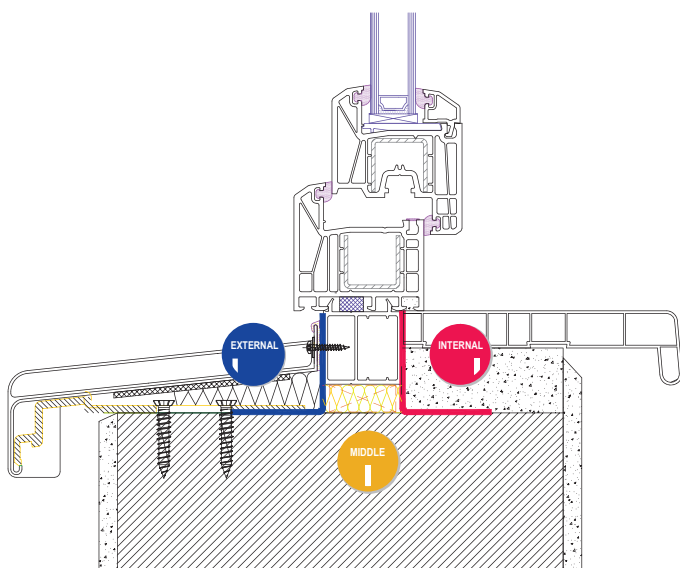
→ Variant 1



Lower window sill connection



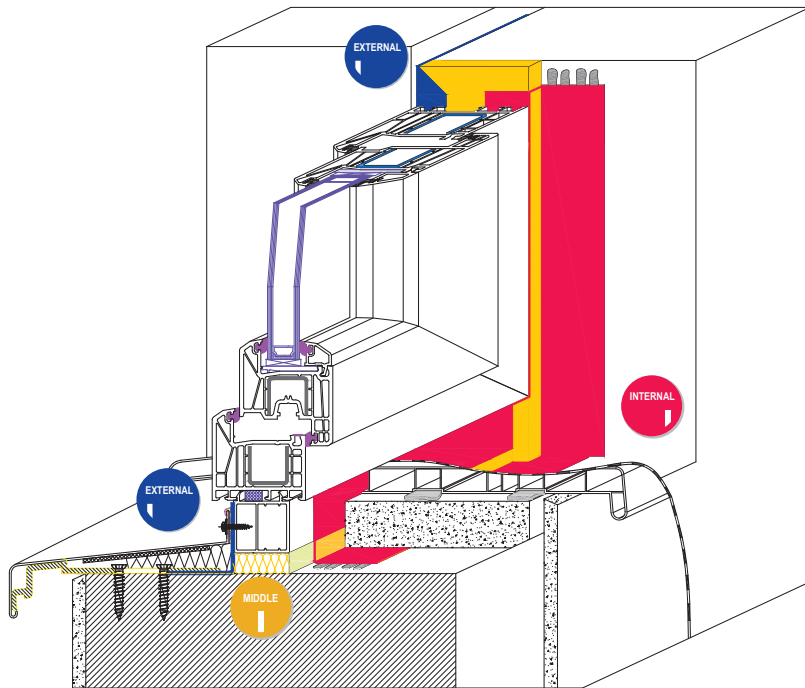
Side window sill connection



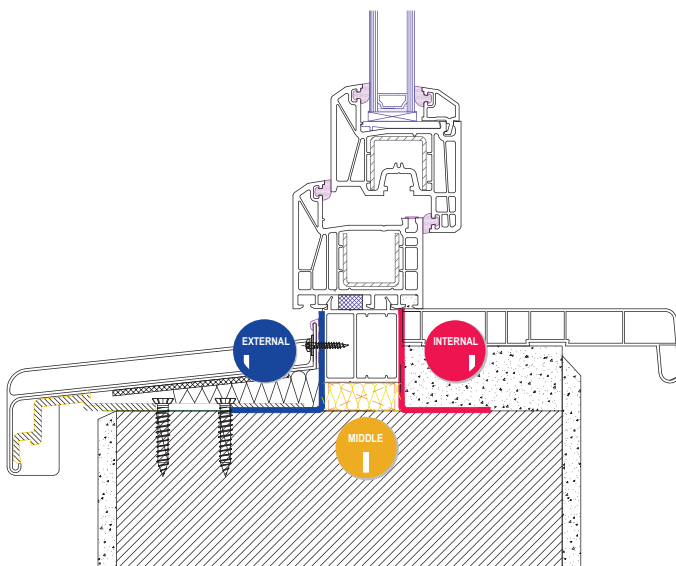
NEW BUILDINGS

Monolithic masonry

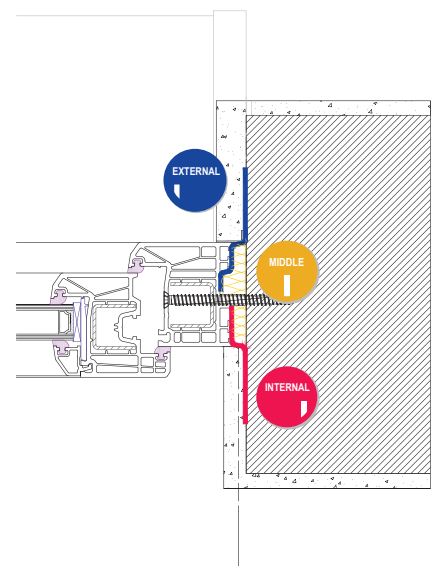
→ Variant 2



Lower window sill connection



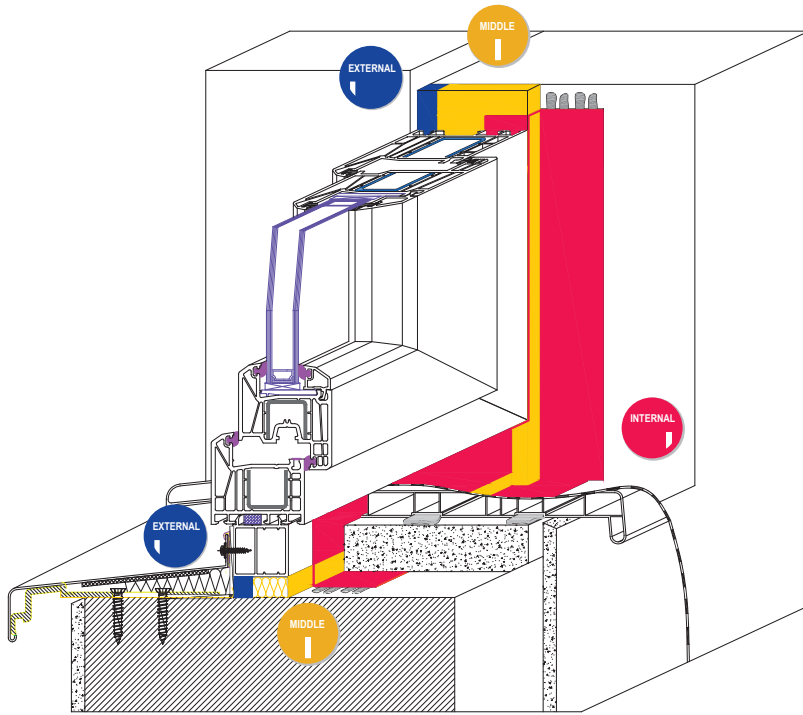
Side window sill connection



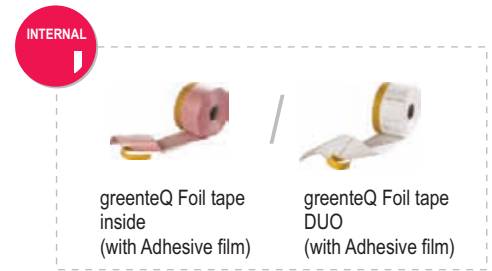
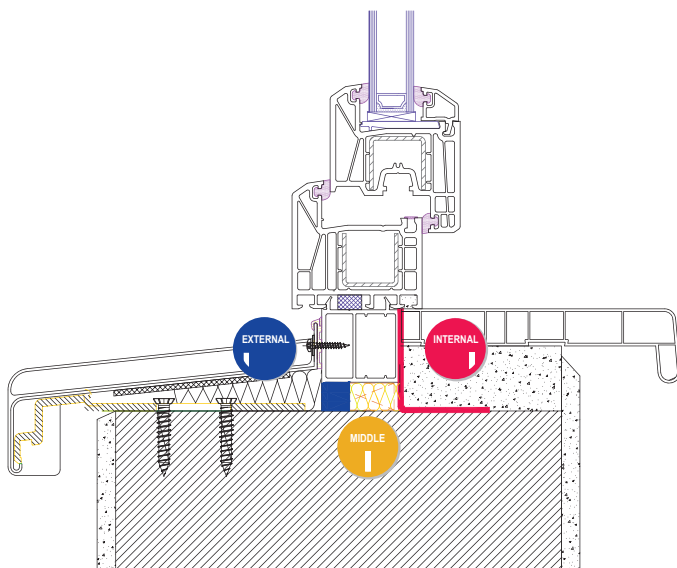
NEW BUILDINGS

Monolithic masonry

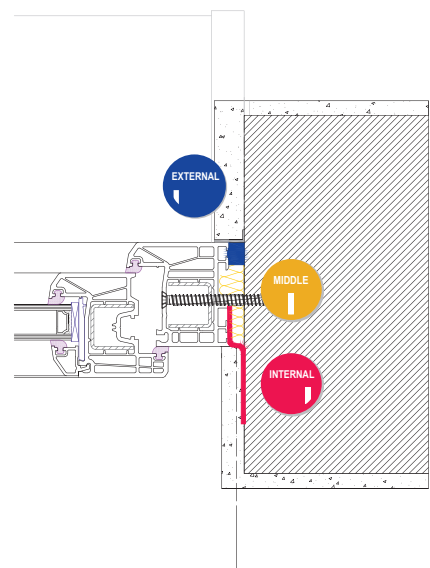
➔ Variant 3



Lower window sill connection

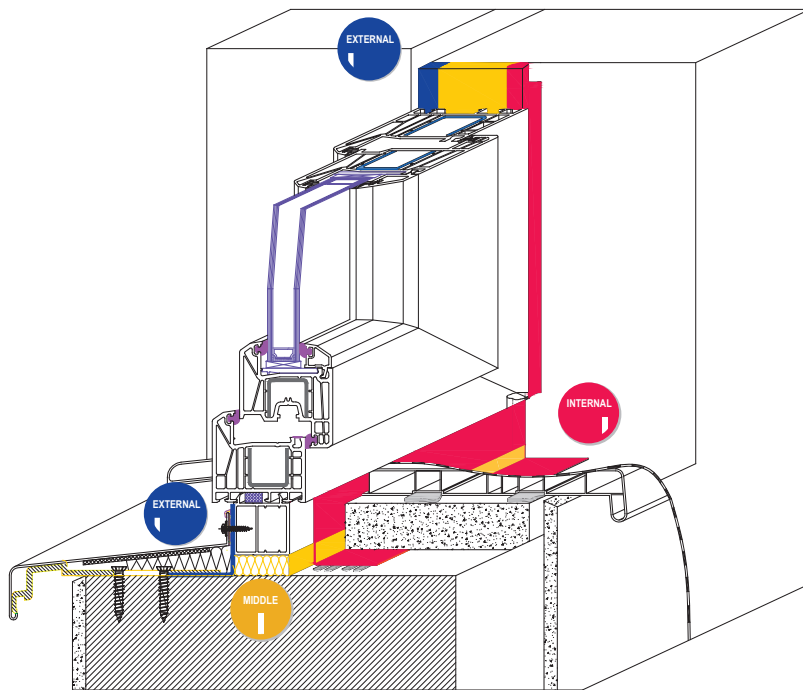


Side window sill connection

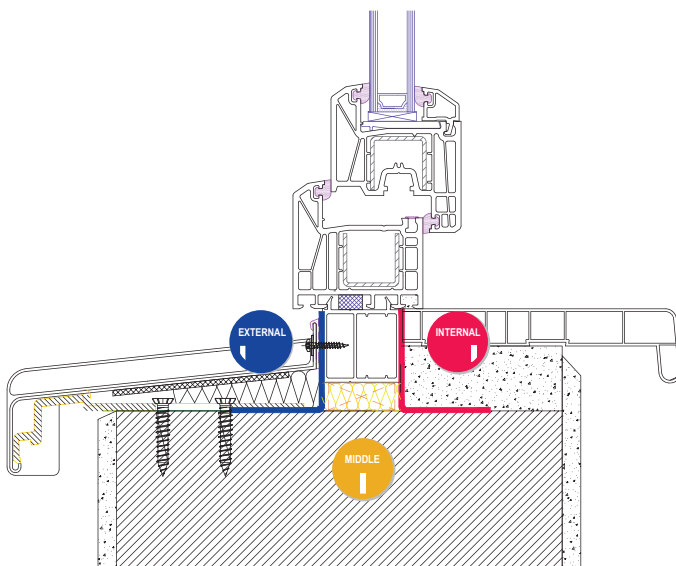


NEW BUILDINGS Monolithic masonry

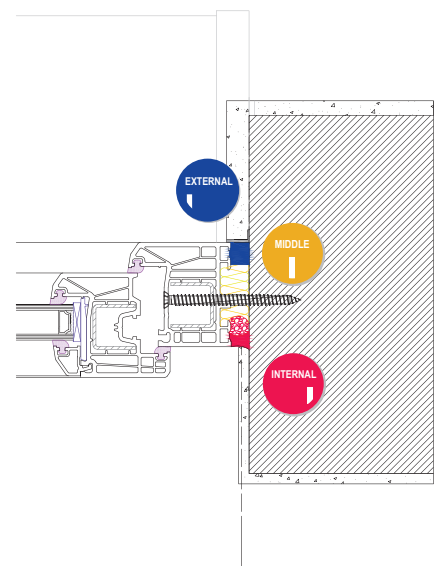
➔ Variant 4



Lower window sill connection



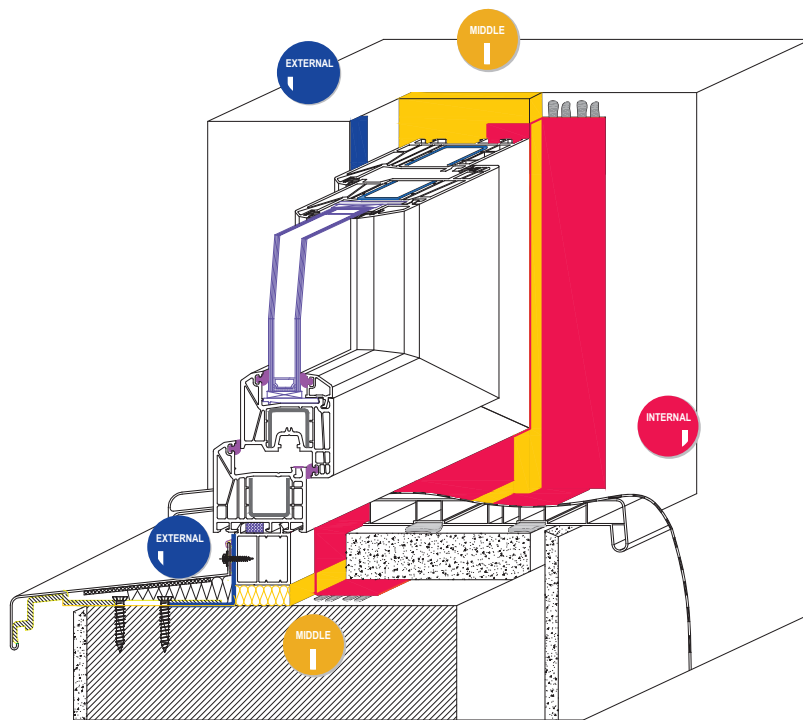
Side window sill connection



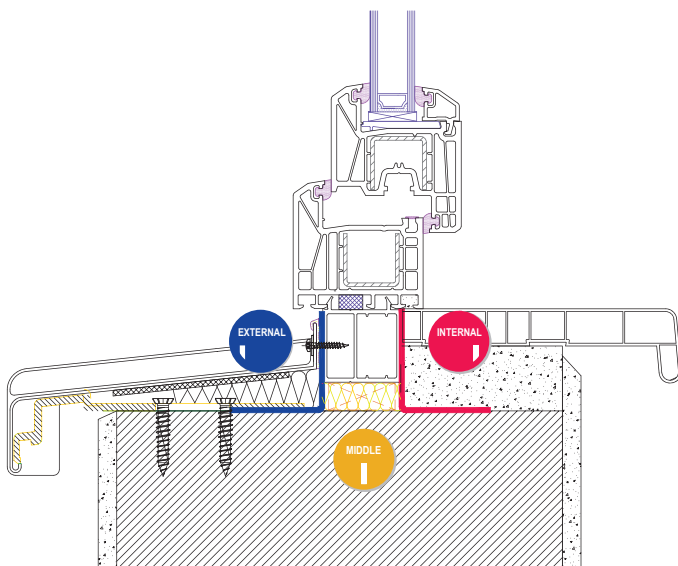
OLD BUILDINGS

Joint with masonry

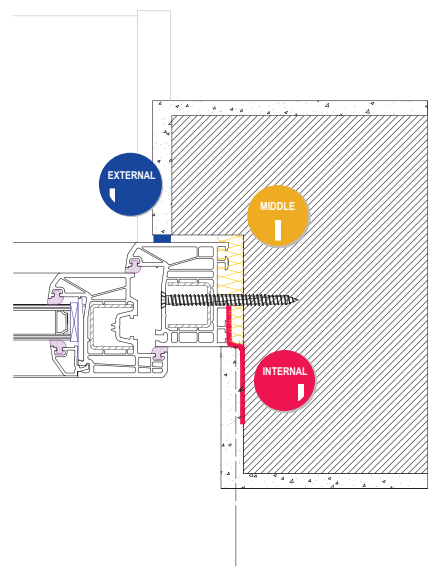
→ Variant 1



Lower window sill connection



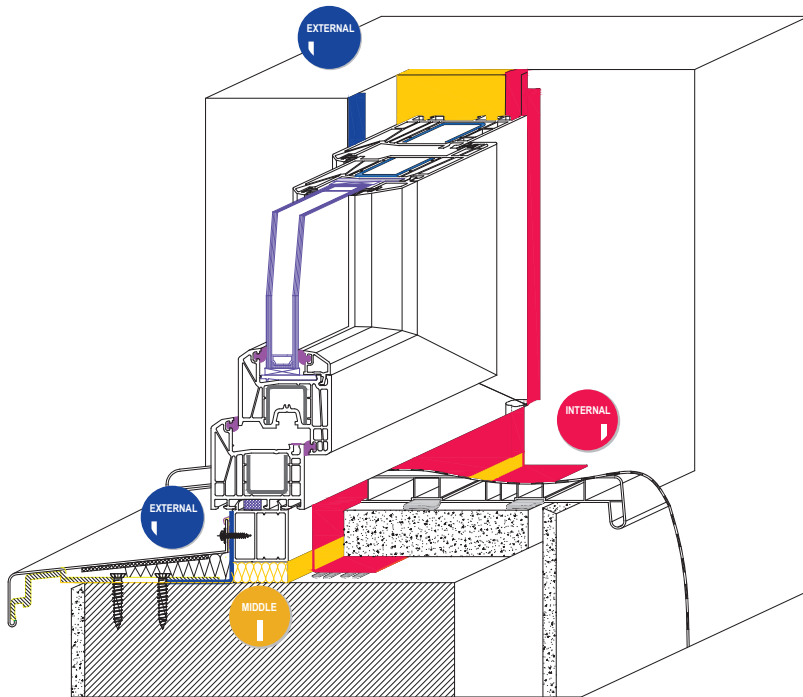
Side window sill connection



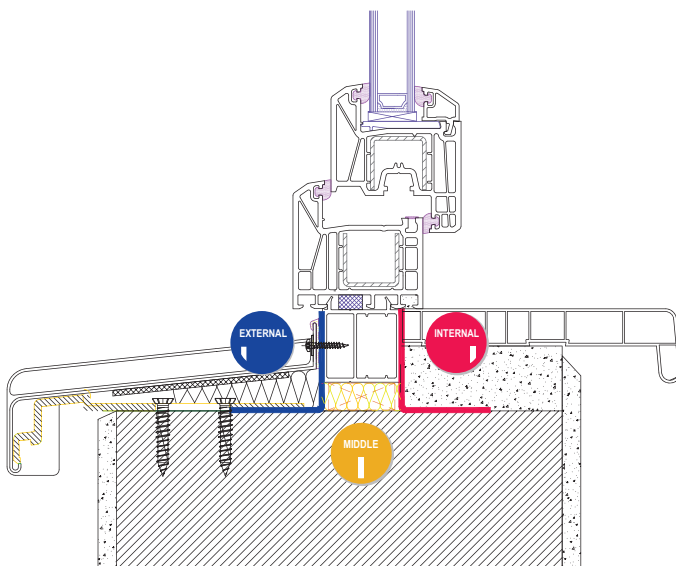
OLD BUILDINGS

Joint with masonry

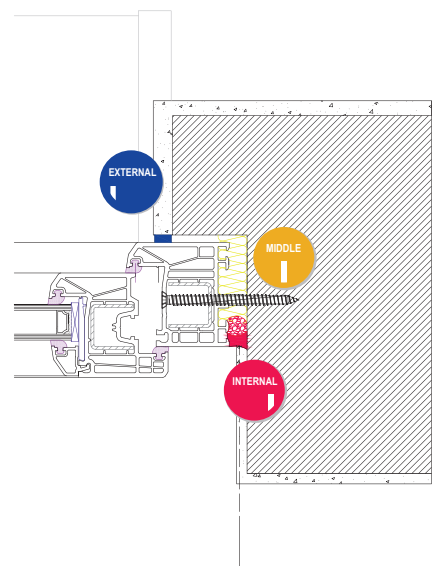
→ Variant 2



Lower window sill connection



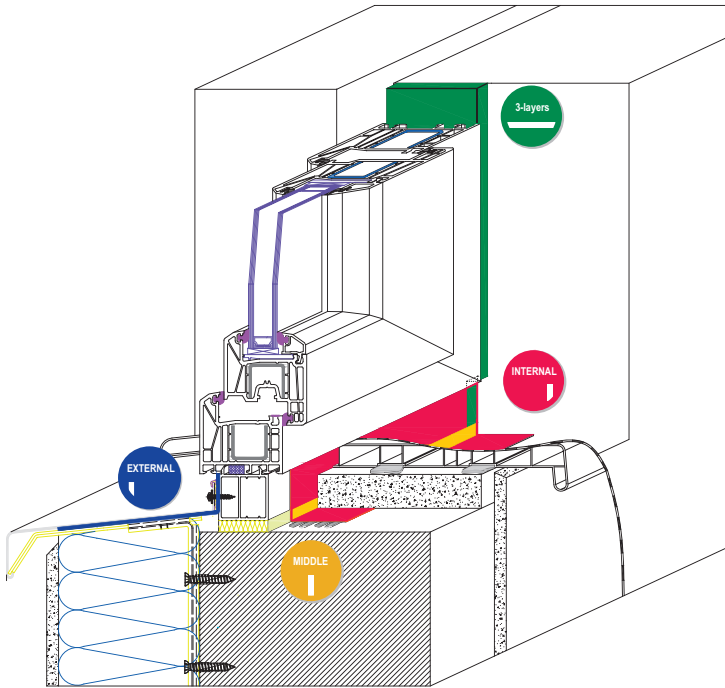
Side window sill connection



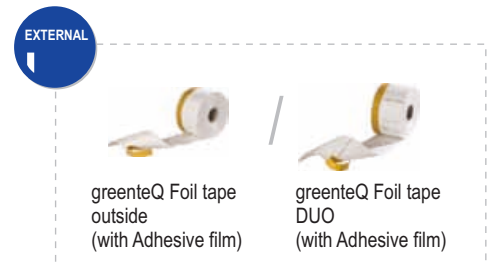
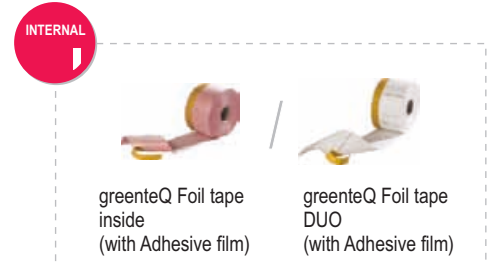
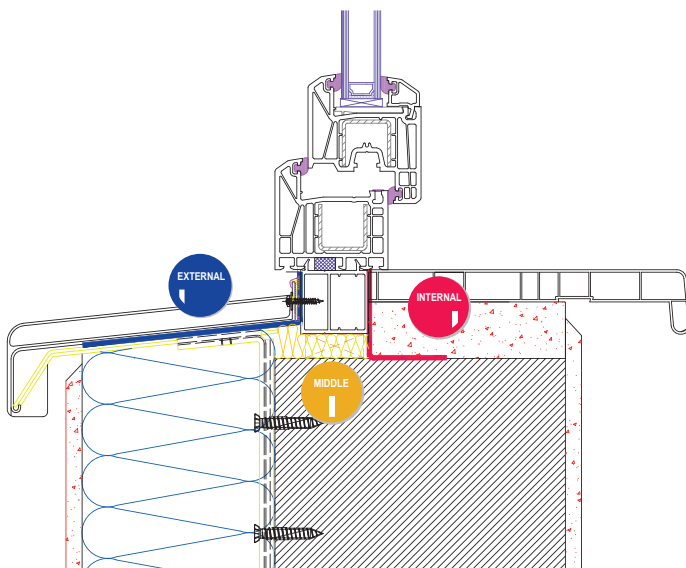
NEW / OLD BUILDINGS

ETICS masonry

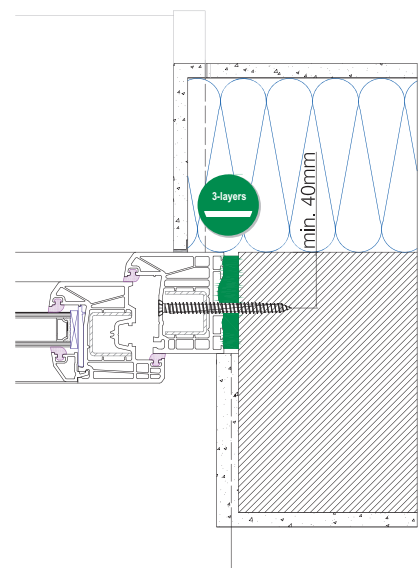
→ Variant 1



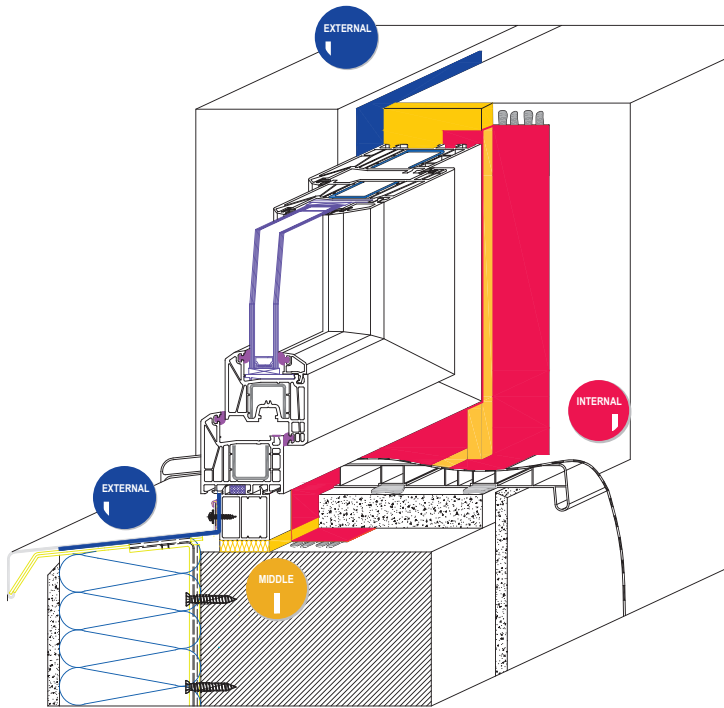
Lower window sill connection



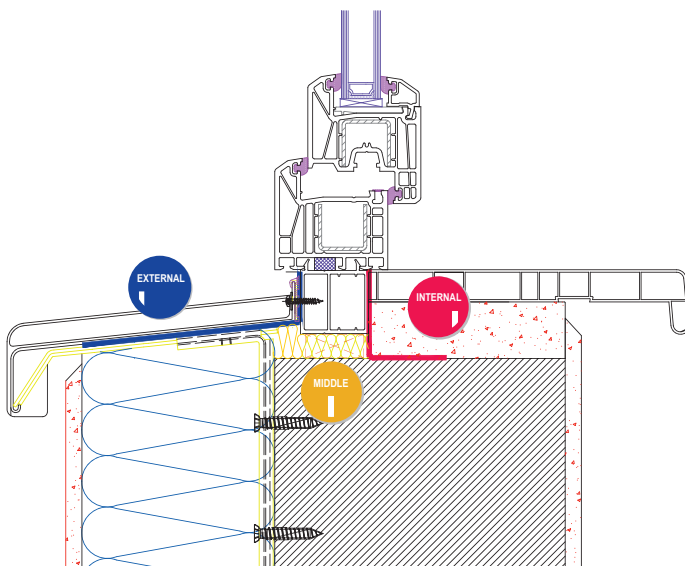
Side window sill connection



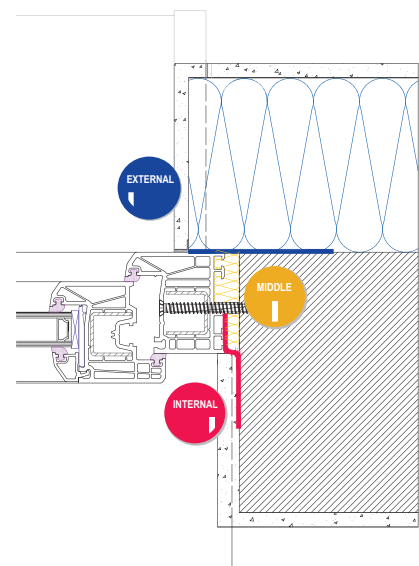
NEW / OLD BUILDINGS ETICS masonry → Variant 2



Lower window sill connection



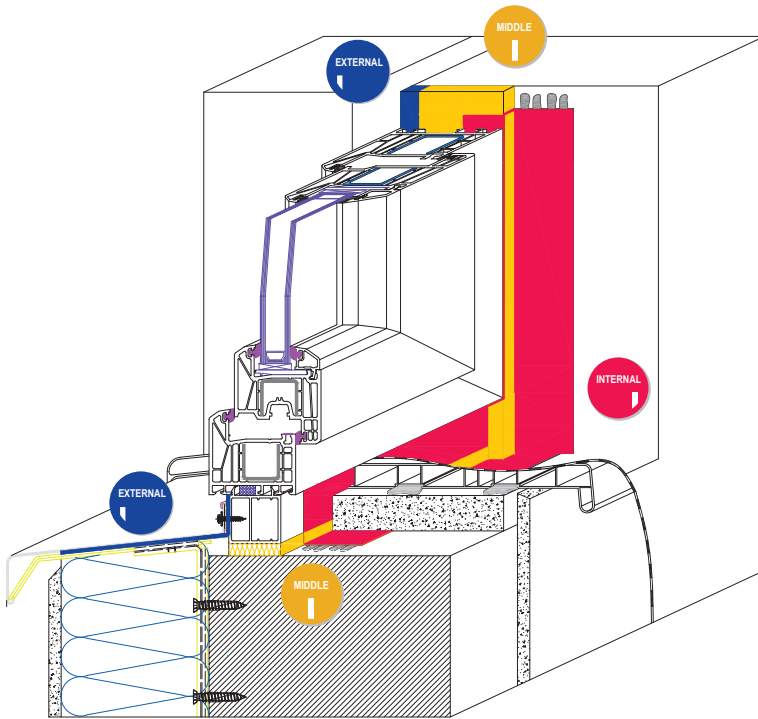
Side window sill connection



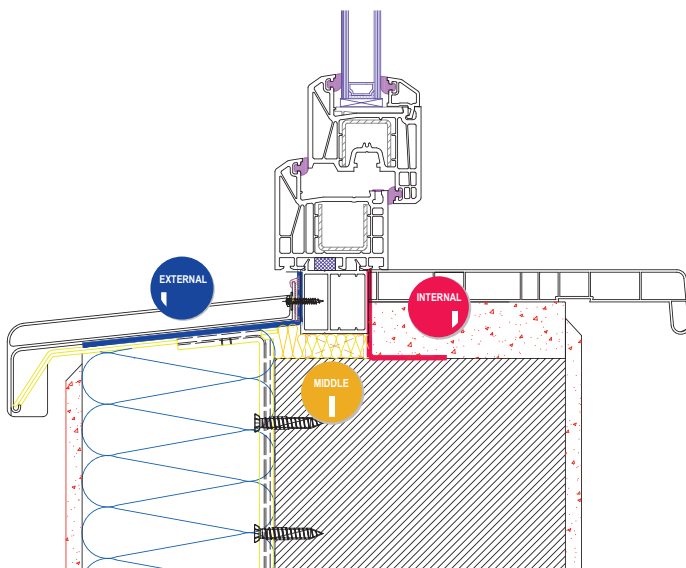
NEW / OLD BUILDINGS

ETICS masonry

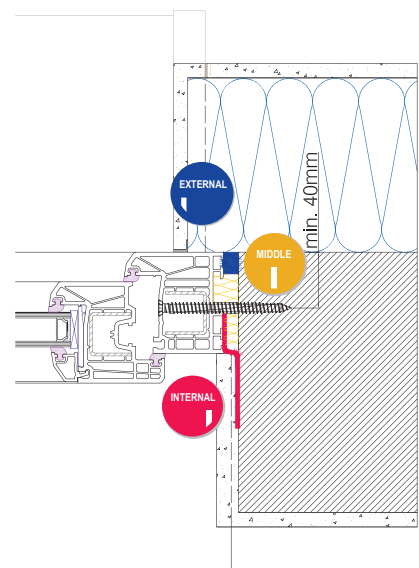
➔ Variant 3



Lower window sill connection

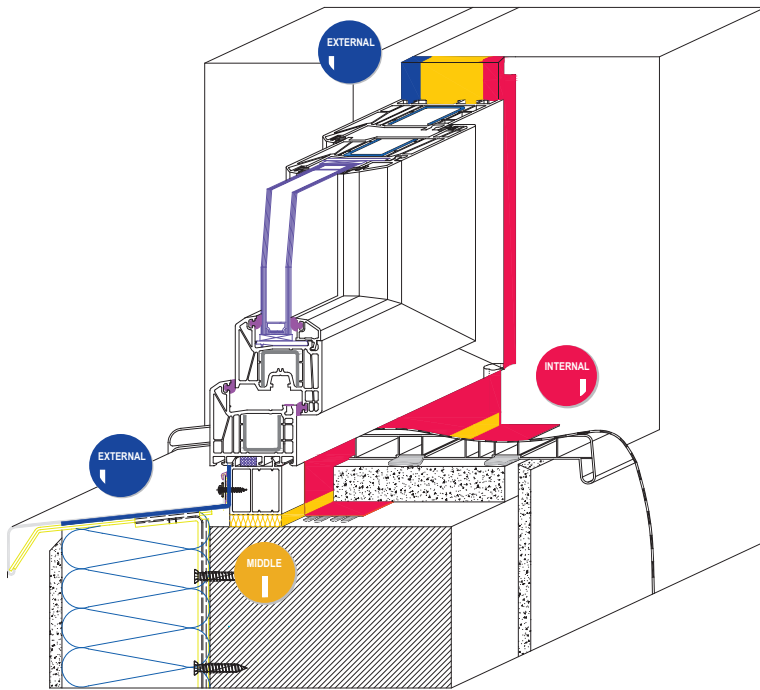


Side window sill connection

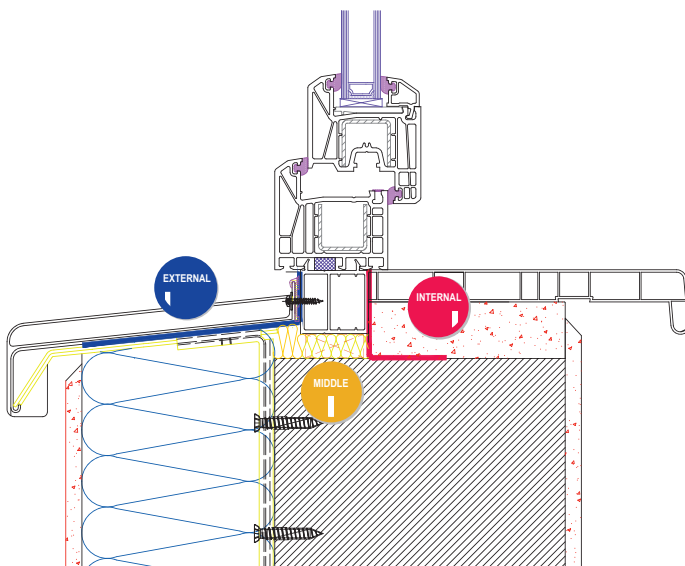


NEW / OLD BUILDINGS ETICS masonry

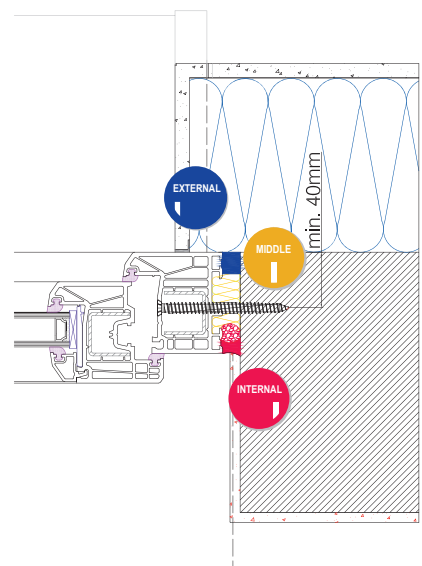
→ Variant 4



Lower window sill connection



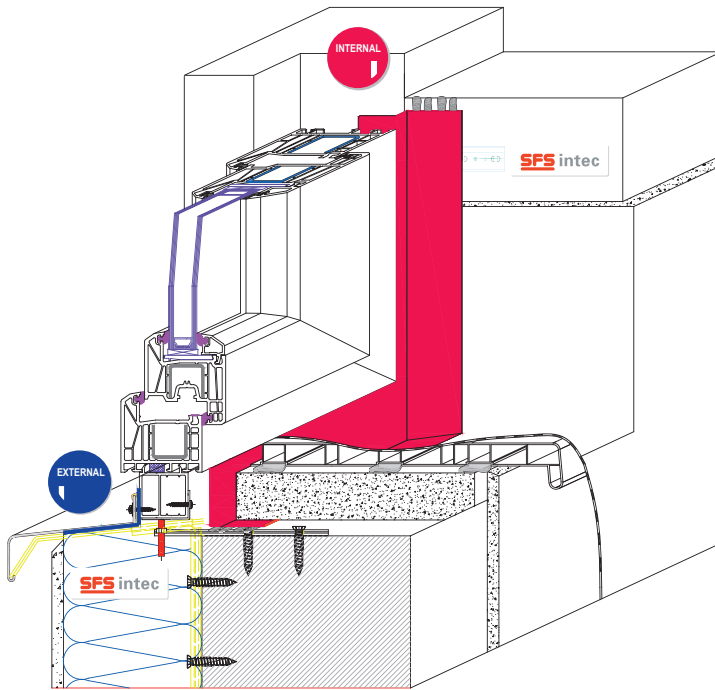
Side window sill connection



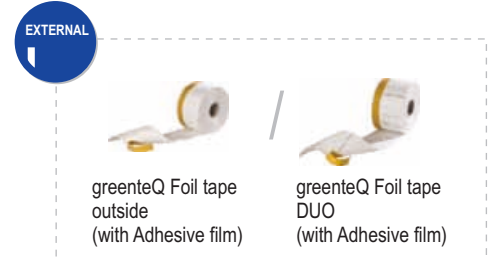
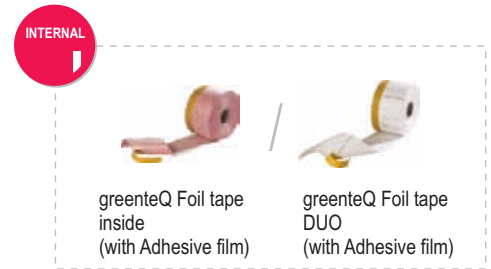
NEW / OLD BUILDINGS

Window in ETICS

→ Variant 1

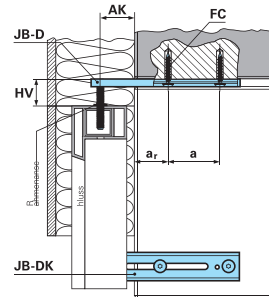


Lower window sill connection



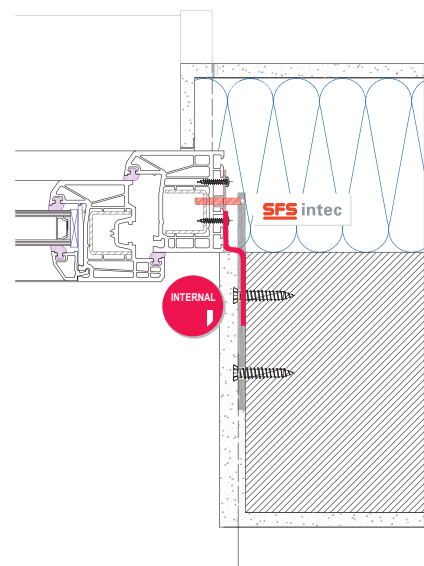
SFS intec

Pre-installation of consoles JB-D(K)



- + Installation layer selectable according to isothermal characteristics
- + Professional sealing is not prevented
- + Sufficient room for insulation and sealing material

Side window sill connection





JB-D from **SFS** intec

Adjustable window installation in thermally insulated wall constructions

The **JB-D** installation system allows a planned window installation procedure according to RAL guidelines and ensures that all live loads can be efficiently dissipated. The JB-D system is adjustable in three dimensions in order to easily compensate for construction tolerances. The installation level can be freely chosen and can be adapted corresponding to the isothermal characteristics.

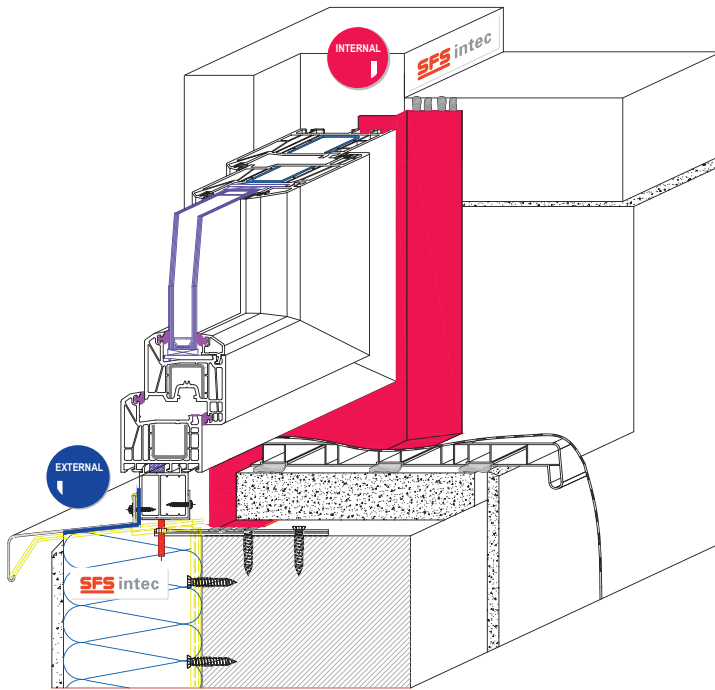
- + Full 3D adjustability
- + Easy compensation of typical construction tolerances
- + Installation of large, heavy windows is easy, quick and reliable
- + System solution for overhangs from 5 mm to 150 mm
- + Increased load-bearing capacity without costly additional measures
- + The lower consoles of the JB-DK can be remounted on the building structure
- + The sustainability of the installation makes rework unnecessary and reduces complaints

- + Calculated load bearing capacity and confirmed statics
- + Reliable window installation according to a planned procedure
- + Dissipation of all live loads
- + Comprehensive overall system from one source
- + Defined frame and axis offsets of the fasteners – since the JB-DK50 and JB-DK100 function as a drilling template
- + Easy and reliable mounting according to RAL guidelines

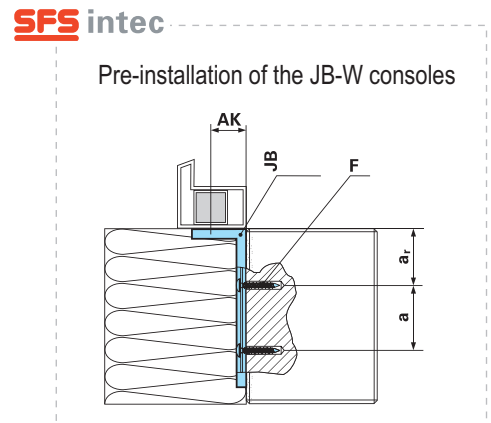
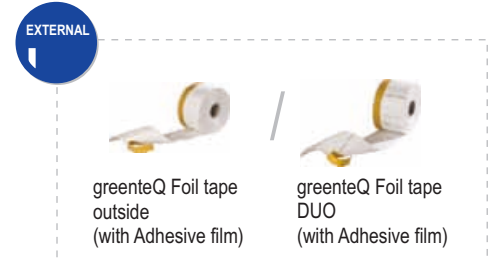
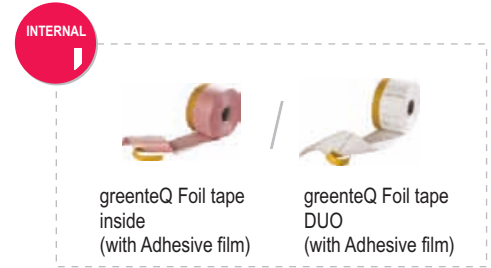
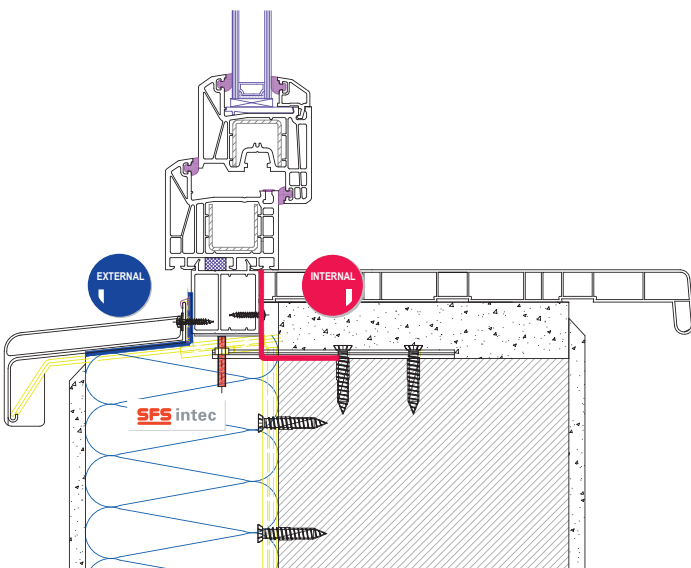
NEW / OLD BUILDINGS

Window in ETICS

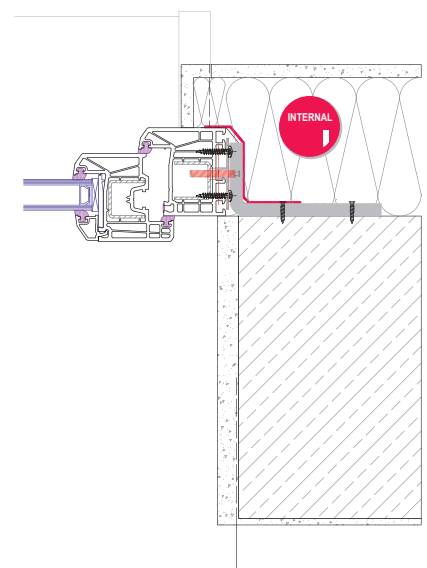
➔ Variant 2



Lower window sill connection



Side window sill connection



Q Technical Explanations

Joint width:

The outer edge of the window frame up to the masonry - gap between the joint edges (DIN 52460:2000).

Joint depth:

The depth of the space between adjacent structural elements formed by the joint edges (DIN 52460:2000).

Embrasure:

The distance between the inner edge of the window frame and the inner edge of the masonry.

Adhesive foil:

The foil must cover at most 50% of the embrasure depth, but no more than 60 mm.

Full adhesion with foils:

At least 75% of the surface must be bonded.

More questions about sealing?

Everything you want to know about sealing ABCs can be found in our VBH Knowledge Database at www.vbh24.de

**VBH Knowledge Database –
bundled knowledge in one location.**



Overview of the most common structural connections

Definition of the individual structural connections:

A structural connection is the construction- and mounting-related connection of a window with the surrounding wall.

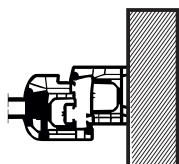
Three joint types are possible:

- Butt joint
- Interior joint
- Exterior joint

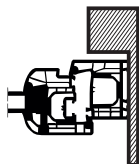
The window connections are distinguished by name according to the side of the window frame:

- The lower horizontal part of the window construction on the outside is called a window sill.
- The inner horizontal part is called a window ledge.
- The part below is called a window parapet.
- The lateral, vertical boundaries are called window embrasures.
- The horizontal part above the opening is called a window lintel.

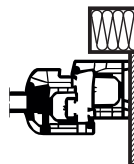
Monolithic masonry



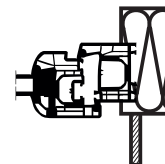
Joint with the masonry in old buildings



ETICS masonry



Window in ETICS



Masonry connections used in the brochure:

The installation situations shown in the brochure refer to a monolithic (single-shell) construction.

This involves single-shelled exterior walls that can consist of several layers and, for structural reasons, must have a minimum thickness of 17.5 cm. These are made of low-density stone with lightweight or thin-bed mortar. Typical wall thicknesses generally range from 36.5 to 49 cm.

In new buildings, a butt joint is used. This is popular with a monolithic construction and is a standard solution. Here, the exterior joint protects against rain and wind, while the interior installation joint must ensure that the connections are air-tight. Due to thermal considerations, the window level must always lie in the middle third of the wall because this results in the most efficient isothermal characteristics with the lowest thermal bridge loss coefficients ψ .

In old buildings, an interior joint is used. This is to be designed such that structural coverage of the window frame is ensured and good protection

against driving rain is provided. The wind break can be moved to the interior, which means that it is not only permanently protected but can also act as an airtight layer.

In addition, schematic diagrams with an interior joint plus additional insulation (external thermal insulation composite systems - ETICS) are shown. Here, the same properties apply as for single-shell exterior walls without ETICS. The ideal position of the window frame is such that it sits approximately in the middle of the insulating layer and the outside of the frame is partially covered with insulation. The resulting interior joint should be formed with two insulation layers, which provide a high degree of noise protection, which is critical for the suppression of noise transmission in windows.

The greenteQ sealing system VARIO 3

Properties of VARIO 3 tape:

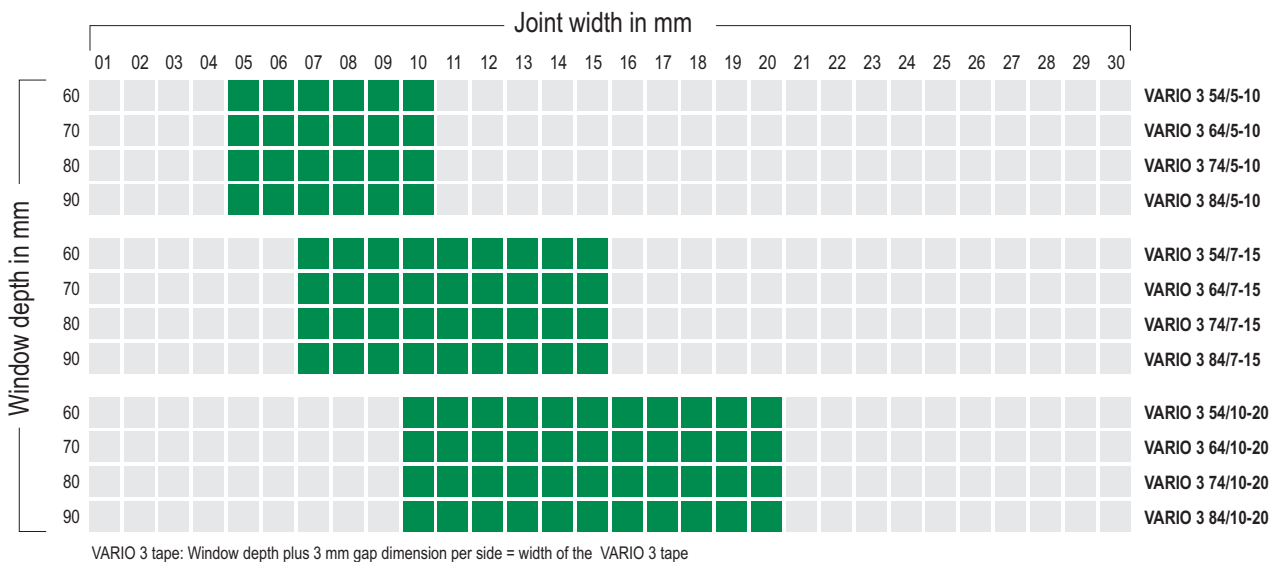
What is VARIO 3 tape used for?

It helps make the connection joints of windows and doors airtight and resistant to driving rain, while simultaneously providing thermal insulating properties across the entire structural depth. On the inside, the greenteQ VARIO 3 tape has airtight and diffusion-inhibiting properties. It is a "one-tape solution" that combines all requirements of an EnEV-compliant installation in one product and is therefore especially suitable for a safe, uncomplicated and time-saving sealing of window and door connections.

- 3-layer sealing with only one product
- Sealing of all types of joints with only a few tape sizes
- Easy and reliable window sealing during installation in just one step
- High cost advantage through time savings during installation
- Weather-independent installation
- Corresponds to the high demands of the EnEV
- Weather-resistant

Sizes of the multifunction tapes:

How do I choose the correct VARIO 3 tape?



Procedure for VARIO 3 tape:

What should be observed with VARIO 3 tape?

1. Determine the actual joint width.
2. Clean or smooth the joint edges; care should be taken that the VARIO 3 tape lies directly on the respective materials (wall / window) - hollow areas must be avoided.
3. Affix the adhesive to the appropriate adhesive surface of the window frame profile without stretching the VARIO 3 tape. The adhesive is only intended as a "mounting aid"; in decompressed state, the tape holds under its own pressure (material pressure).
4. Check whether the VARIO 3 tape is properly affixed at all points. A high accuracy in fitting and tightness should be ensured here.
5. Affix the tape in the joints and corners in accordance with the manufacturer's instructions (www.greenteQ.info).
6. Place the window with the affixed VARIO 3 tape in the embrasure.
7. Align and secure the element in the wall opening.
8. Once the joint has been completely filled, perform a visual inspection of corners and joints.





Always on your side – the VBH Enhanced Service Package.

More products, more brands, more value.

Simply everything you need for the manufacture and installation of windows and doors can be obtained from VBH. And when we say "everything", we mean "everything" – which places major demands on quality. You can be certain of obtaining the most comprehensive range of products in the industry at a consistently reliable level of quality.

We always try and keep things simple here at VBH. From the initial contact to day-to-day cooperation. From personal consultations to the use of state-of-the-art communication media. The people at VBH provide quick and uncomplicated support and act in a friendly and fair manner in day-to-day activities.

The expert brand for window and door fittings is always at your side. We support you in achieving your goals. Experience efficient processes together with us, benefit from the experience of our employees and simply expect more from us. That means you can depend on the VBH Enhanced Service Package – at all times.



Mounting



More from our product range?
See our VBH Installation Catalogue

Q Mounting

Mounting for window and door production

The greenteQ product range for mounting technology encompasses the complete range of screws for the production of windows. The selection is ideally suited for fixing of reinforcement into PVC profiles as well as the screws for hardware. In addition, the greenteQ product range offers fasteners for clamp fastening of additional profiles such as shutter rails and weatherboarding, etc. to PVC window profiles.



Window and door production

The products required for mounting windows and doors are right at the start of the process chain.

Here, greenteQ provides a coordinated product range with greenteQ window screws for mounting reinforcements and PVC profiles.

The products are used for the production of windows.

Fasteners for window mounting

The selection of greenteQ fastening technology covers all your window installation needs. The product range includes the attachment of window sills and window handles as well as the fixing of window frames to different structural substrates.



Window mounting

Attachment of the window during window installation must be carried out in combination with the window frame materials used and the given installation situations. In the first step, the window frame must be secured in the structural connection. Here, the window is fixed perpendicularly to the window level with mechanical fastening elements. For this purpose, greenteQ offers a wide range of window frame screws and metal frame dowels.

For PVC, the maximum fastening spacing is 700 mm; for wood and aluminium, 800 mm. Fastening occurs 150 mm from the inside corner in each case. Each side must be anchored at a minimum of two points. With the installation of windows, care must be taken to ensure that the forces are properly transferred to the building. No subsequent deformations are permitted that would adversely affect the function of the window.



Content:

- Product overview: window production
- Product overview: window installation

Production



greenteQ Window construction screw with gimlet bit with and without tins **A**



greenteQ Window construction screw with drill bit with and without millribs **B**



greenteQ Glazing blocks (various thicknesses)



greenteQ Glazing blocks with rabbet (various thicknesses)



greenteQ Nipple screw with thread bit **C**

Profile overview of nipple screws:

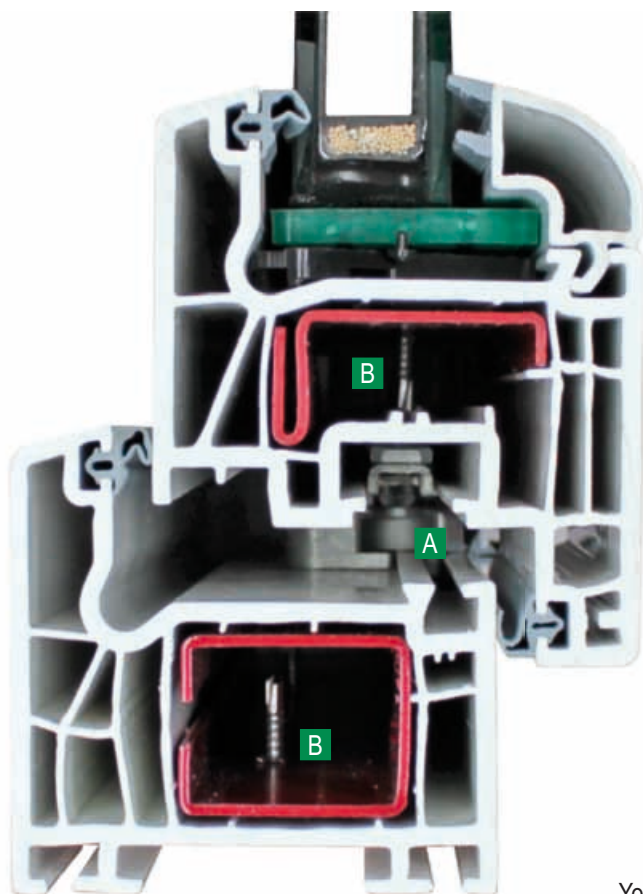
Altacan, Aluplast, Brüggmann, Finstral, Gealan, Gromatic, KBE, Kömmerling, Menke, Rehau, Roplasto, Roth, Salamander, Schüco, SKS, Stöckel, Thyssen, Trocal, Veka



greenteQ Glazing bridges (various profiles)



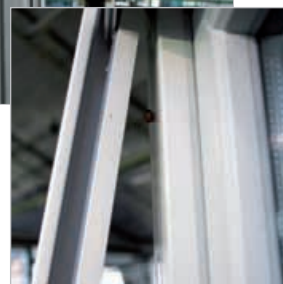
greenteQ Window-wedge (accessories)



C

Fixing of additional window profiles

- Shutter rails
- Weatherboarding



You can find additional information on our product range and associated **articles / barcode lists** at www.greenteQ.info

Mounting

greenteQ Window handle screw
DIN 965

D

greenteQ Window frame screws

E

greenteQ Metal expansion anchor

F

greenteQ Cover caps
different colours and drives

greenteQ Window sill cap screw

G

greenteQ Window sill screw with
PA, wood screw thread

G

greenteQ Window sill screw with
PA, metal tapping screw thread

G

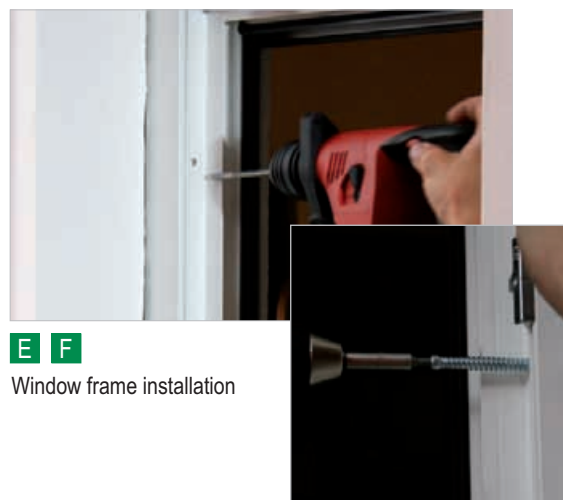
greenteQ Window sill screw with
PA, Pozidriv

G



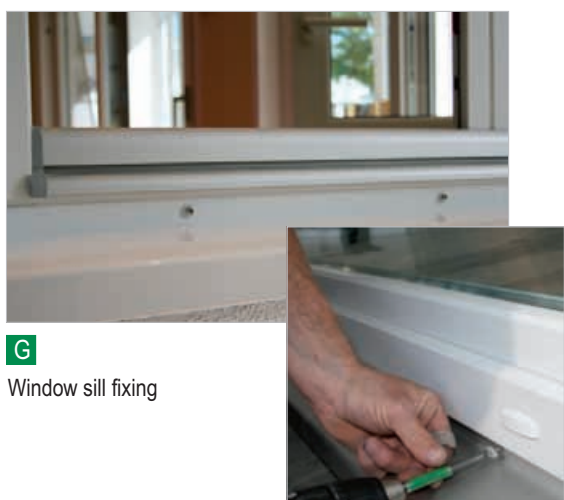
D

Window handle installation



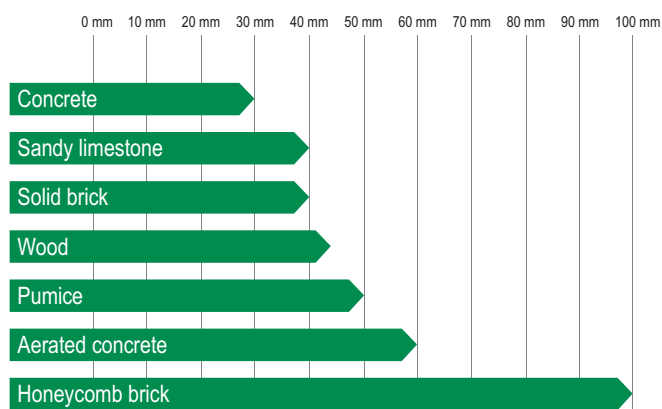
E F

Window frame installation



G

Window sill fixing



Minimum screw-in depth in the masonry:
Metal frame dowel / Window manufacturing screw



Accessories



More from our product range?
See our VBH Tool Technology Catalogue

Q Accessories

In our accessories area, you can find a selection of essential, high-quality window and door mounting products.

The greenteQ product range includes products for sealing and mounting. Here, the well-coordinated selection of greenteQ products includes greenteQ cleaners and adhesives as well as window-foam-related accessories such as dosing guns, gun cleaners and pressure sprayers.



Construction chemistry

In the area of construction chemistry, we offer a coordinated product range of many useful greenteQ products that are essential for the manufacture and installation of windows and doors.

Whether you want to clean or glue something – we have the appropriate greenteQ products for your purposes.



Additional products

The additional products are a selection of items that you can attach/apply to your windows and doors to increase their value. Our greenteQ additional products are high-quality, ecologically designed and have a long service life.

Whether it's a protective insect screen, a shutter motor or a window sill – our greenteQ products help make life more comfortable.

The silicone accessories consist of smoothing agents and joint smoothers. In addition, the greenteQ product line includes interior window sills, sabre saw blades, block lifters and protective insect screens.

When it comes to tools for mounting and dismantling windows, we are supported by strong name-brand suppliers of VBH.



Tools

With our practical greenteQ tools, we round out our product range and help you create things more easily.

Whether it's a cut for a window sill or the application of foam and silicone – the greenteQ products make it easier for you to carry out work on windows.



Content

- Accessories for construction chemistry
- Accessories for tools
- Accessories for additional products

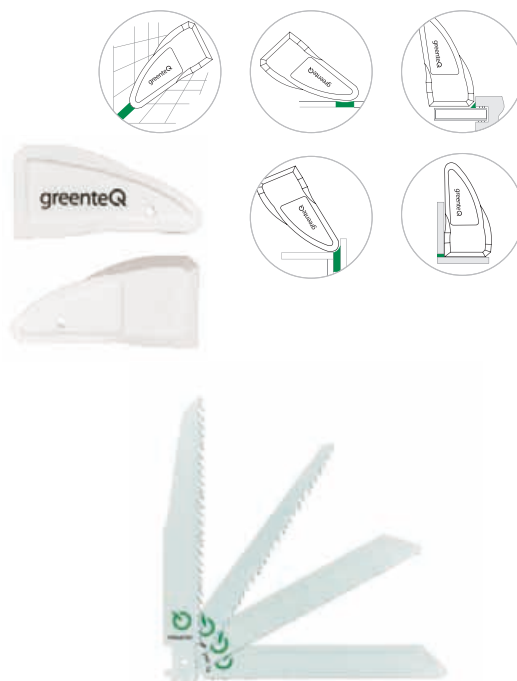
Construction chemistry

greenteQ adhesives and cleaners, greenteQ glues, greenteQ smoothing aid, greenteQ gun cleaner



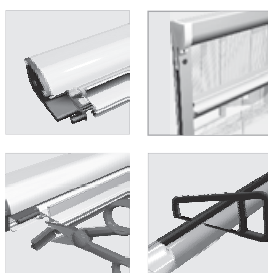
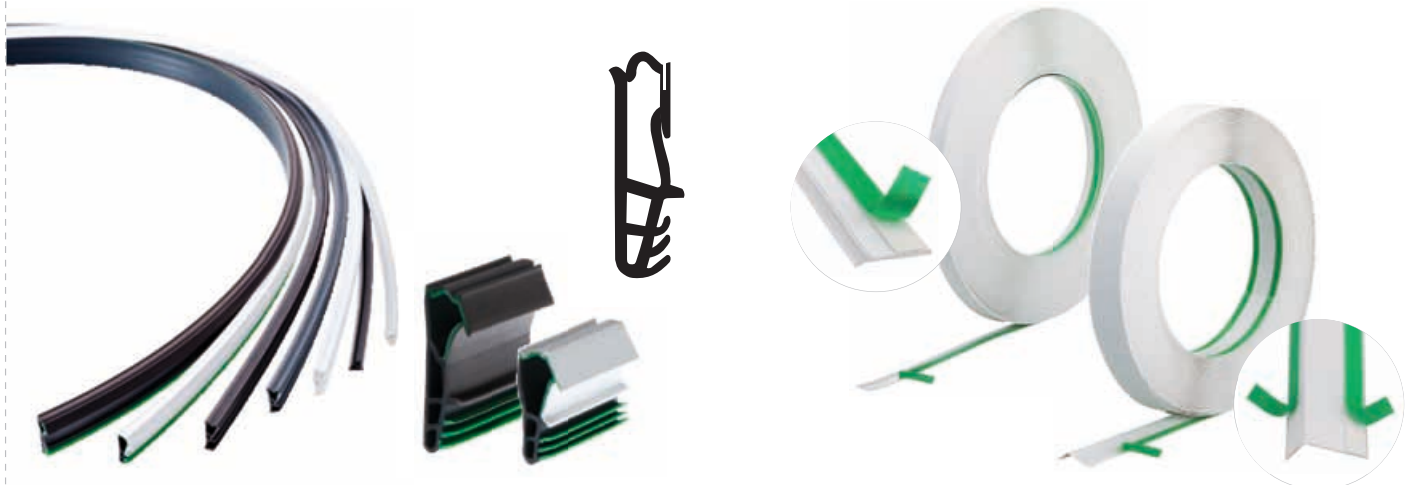
Tools

greenteQ metal gun, greenteQ pressure sprayer, greenteQ sabre saw blades, greenteQ smoothing agent

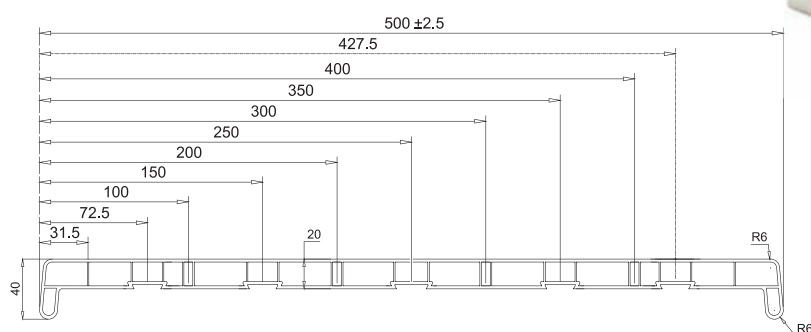
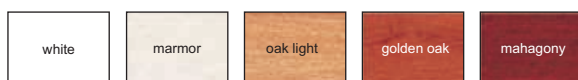


Additional products

greenteQ seals, greenteQ compressed flat rod and flexible angles, greenteQ insect screen rollo, greenteQ roller shutter motors and accessories, greenteQ internal window sills and accessories



Please also view our installation video at:
www.greenteQ.info



Additional information about our product range as well as associated articles/barcode lists can be found at
www.greenteQ.info

Installation in times of EnEV 2009

1 Effects of EnEV 2009 on installation and the structural connection.

With the German Energy Savings Act of 2009 coming into force on 1 October 2009, there do not appear, at first glance, to be any direct, tightened requirements regarding installation and the structural connection of windows in terms of the technical design. The heightened requirements on the building shell and its structural elements as well as the extension of the area of responsibility to all those involved in construction for the achievement of legislatively regulated goals for energy savings, however, create indirectly modified conditions that must be taken into account when windows are installed.

The increased thermal requirements on structural elements lead to specially modified constructions. Examples here include the increasing use of triple insulating glass as well as the greater construction depths for window frames. These changes result in much heavier structural elements and, to some extent, the modified deformation behaviour of the structural elements under climatic effects when the elements are installed. In turn, this leads to increased requirements on the mechanical attachment of components and the dissipation of loads to the building structure. Likewise, thermal-related improvements required in the exterior area increasingly lead to exterior wall systems with lower stability, especially in the area of the embrasure, which makes proper installation increasingly difficult.

(...)

Worth knowing in brief

Which requirements result from the EnEV 2009 for the installation of windows?

1 From EnEV 2009, only indirect, modified requirements arise due to thermally optimised windows and exterior wall constructions as well as installation situations.

2 The increasingly heavy structural elements (use of triple insulating glass), lower stability of the exterior wall constructions and installation levels in front of the load-carrying wall construction. This must be taken into consideration for the defined installation and load dissipation.

3 Particularly when modernisation is carried out, installers assume additional responsibility, since EnEV-conformant installations must be confirmed in writing by the builder (contractor declaration). For the installation of windows, this means: Observance of minimum thermal protection and air-tightness.

4 The revised new editions of the "Guidelines for the planning and execution of installation" as well as "Technical Guideline No. 20" have, amongst other things, been correspondingly updated and extended and provide valuable support.

(...)

For the structural connection of windows, this means in particular:

- Observance of requirements for minimum thermal protection
- Observance of requirements for air-tightness of connection joints for structural elements.

2.1 Increased requirements on mounting and load dissipation

Heavy structural elements, low stability of the bordering exterior wall and mounting positions outside the load-bearing wall are scenarios that fitters are facing more and more. The accepted rules of the trade described above with respect to the layout of load-bearing and distance blocks, attachment spacings, etc. are often no longer sufficient for ensuring a defined installation and load dissipation.

A concrete estimate of the effective forces, the targeted selection of the fasteners as determined by the application along with the fastener manufacturer as well as the planning of the layout and number of attachment points is required here. Correspondingly, the chapters "Befestigung und Lastabtragung" ("Attachment and Load Dissipation") and "Praktische Ausführung" ("Practical Design") have been supplemented.

The procedure for professional implementation of the installation is shown by means of a flowchart and the estimation of expected bearing strengths is shown by means of examples.

(...)

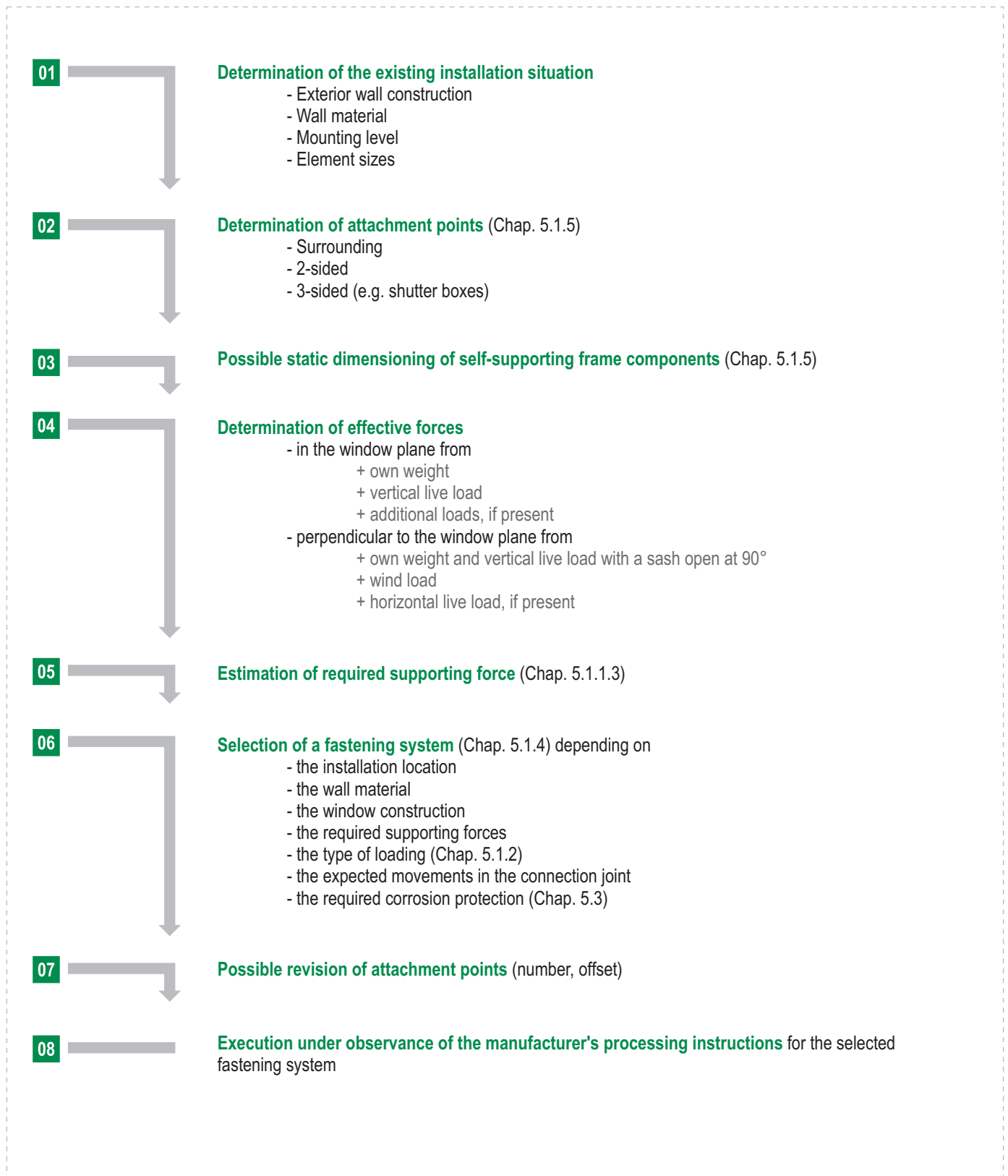
Blower-Door-Test

The Blower Door Test is a test procedure according to EN 13829 for testing whether insulation measures, e.g. exterior connection joints, correspond to the requirements of the EnEV according to DIN 4108-7.

In the process, it is determined how often the volume of air of a building is exchanged to outside air per hour at a pressure difference of 50 Pascal.



Flowchart for professional implementation of mounting on the structural connection



[See new version of "Guidelines for planning and execution of Installation" as well as "Technical Guideline No. 20", from ift Rosenheim, Publisher of the guideline: RAL-Gütegemeinschaft Fenster und Haustüren e. V., Walter-Kolb-Str. 1-7, D-60594 Frankfurt]

Accessories from our partners

The product range of greenteQ grows every day; nevertheless, we focus on strong brands and offer you additional products. The following is a selection of possible additional products from various manufacturers:

Cutting knife



Windbag



Plate girder



Putty knife



Combination bit box



Leather work gloves



Spirit level



Glazing tape



Soft-faced hammer



Scraper



SDS-Plus drill bit



Carpenter's rule



Siphon



Bit selector



Skeleton gun





The expert brand for window and door hardware

- More selection
- More service
- More brands
- More quality



- More advice
- More local
- More experience
- More reliability