

Installation recommendation

viny**Therm** & viny**Stone**

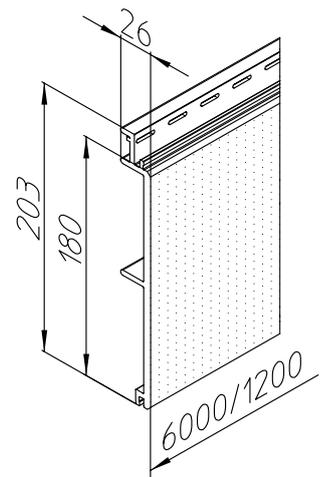
CE-Declaration of Performance

Properties of the construction product supplied correspond to the declared services of the CE Declaration of Performance vinylTherm, no. 2018-001; vinylStone, no. 2015-001
(Download: vinylit.de/downloads)



Planning & Execution

This document represents the manufacturers recommendation for installation only. Whilst all reasonable care is taken in compiling technical information, all recommendations regarding the use of products are made without guarantee since the conditions of use are beyond the control of Vinylit. It is the user's responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it and that the actual conditions of use are suitable. The installer is obliged to check regarding the latest installation instruction and to consider the accepted technology rules, the regulations for facade mounting and the national standards, as well as to observe fire protection and statics.



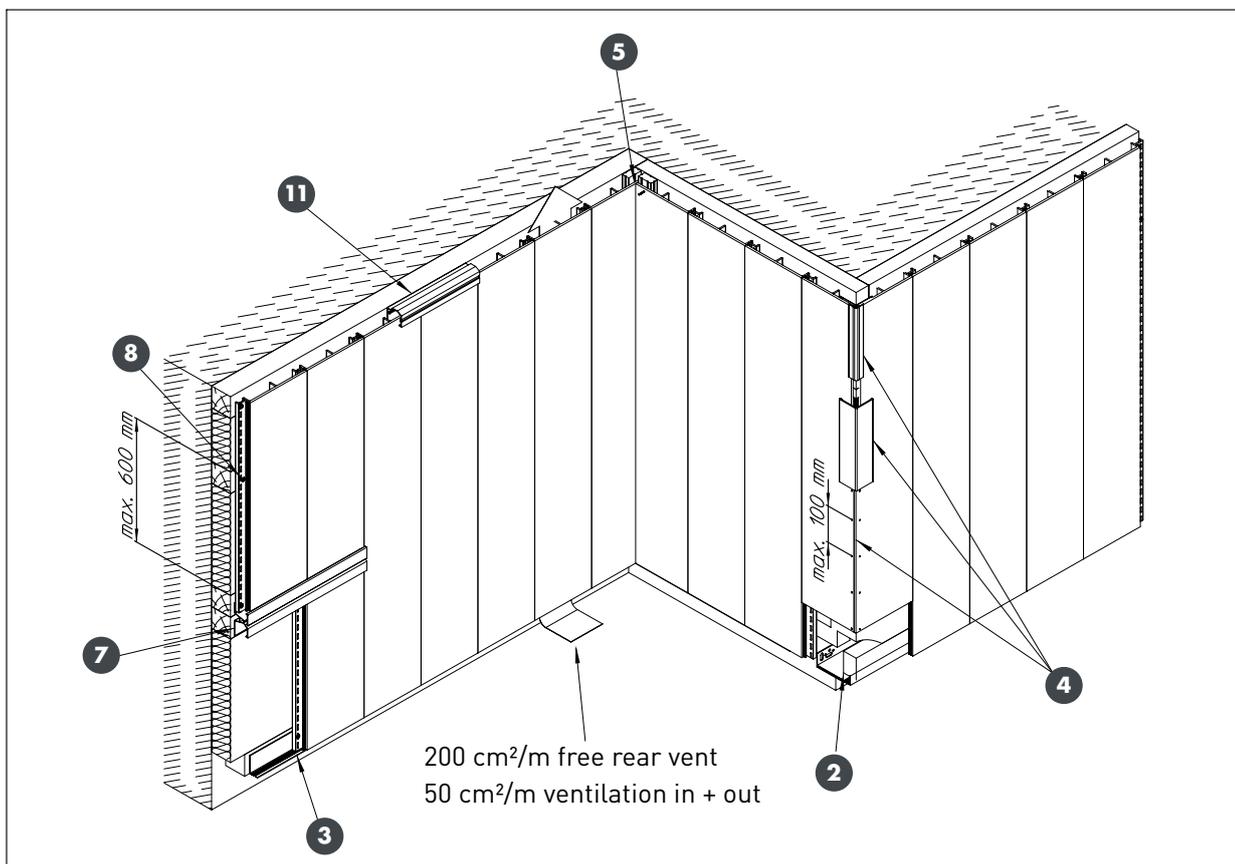
Storage

vinylTherm/vinylStone facades must be stored on level ground. Max. 4 pallets high may be stacked for vinylTherm + max. 3 pallets for vinylStone. Make sure that the vertical bars are on top of each other. When storing it is necessary to protect the product particularly against dirt and direct exposure to sun or wet conditions. On opening the packs remove the packaging over the entire length.

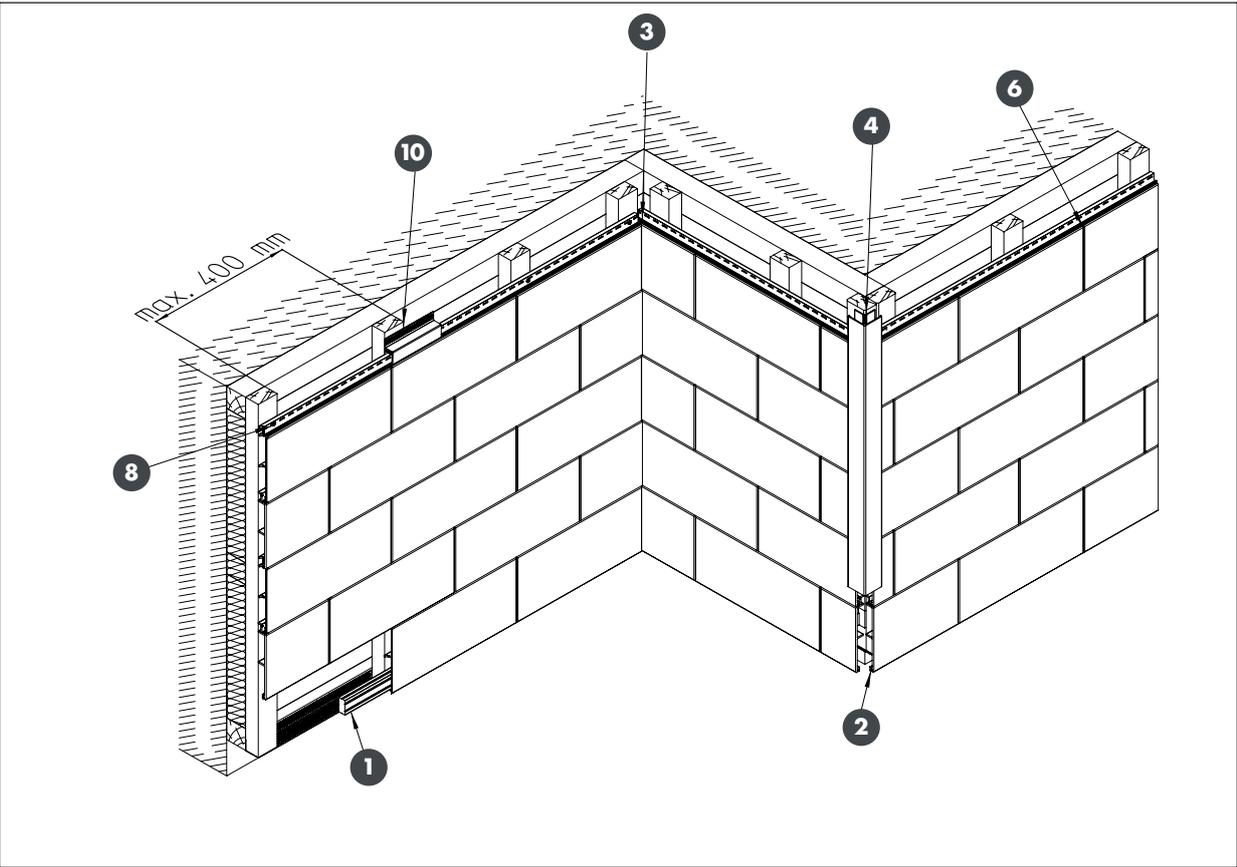
Attention!

While assembling, please be aware of the need for continuous ventilation between vinylTherm/ vinylStone cladding profiles and the wall. According to DIN 18516-1, a free cross-section of at least 50 cm² per 1 m wall length must be maintained. A free cross-section of at least 200 cm²/m is required for continuous ventilation of the facade.

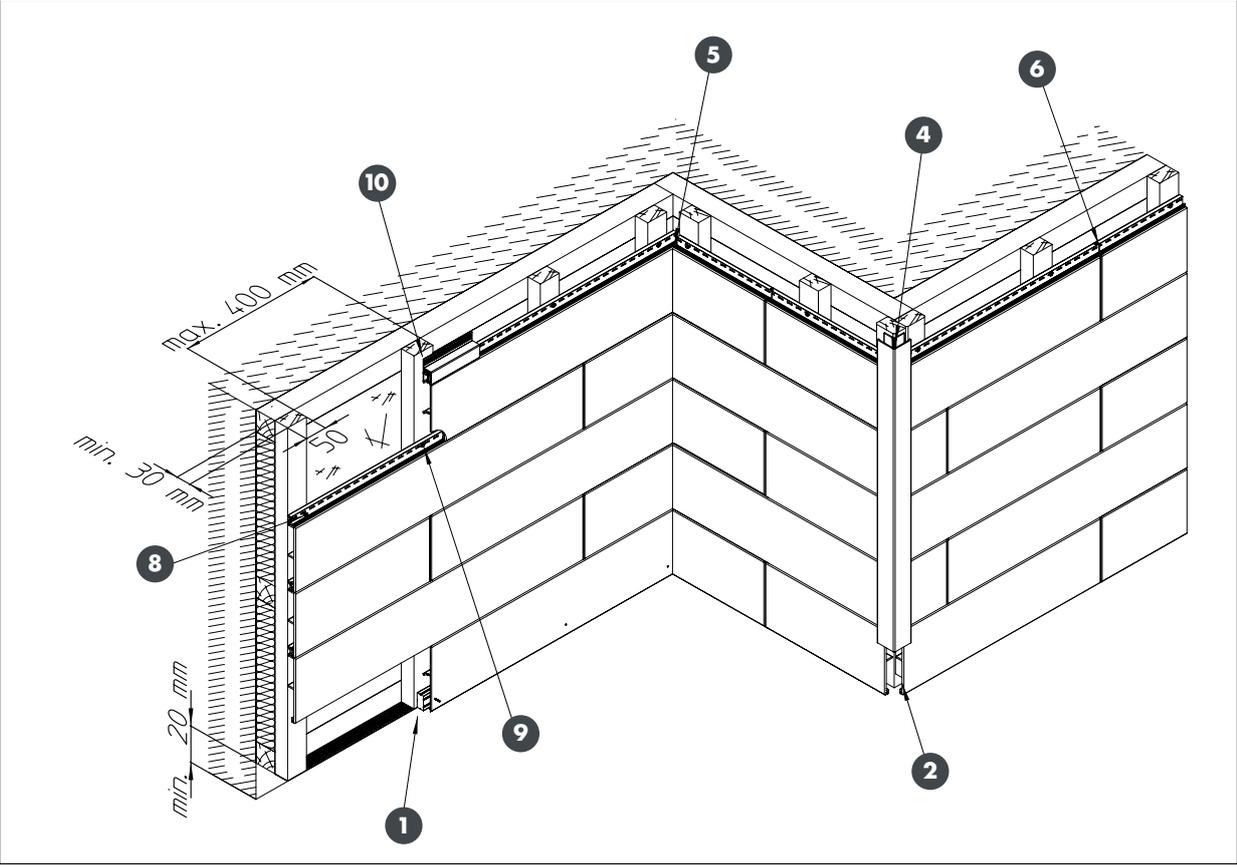
vinylTherm



vinyStone 400 ashlar



vinyStone Design



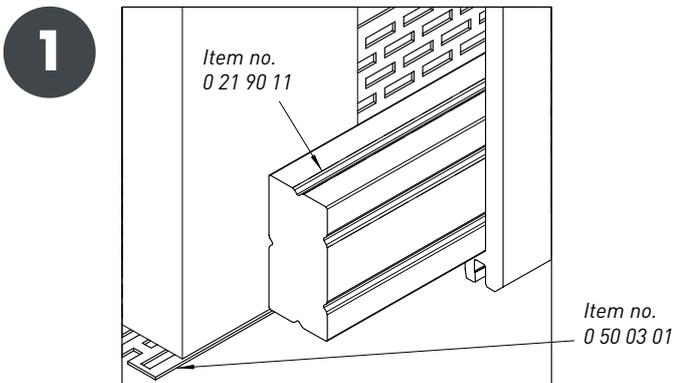
Sub-construction

For a conventional wooden sub-structure timber battens treated according to DIN 68800 or equivalent must be used. Base battens are anchored in the masonry using approved facade anchors. Thickness of the insulation material should be the same as the thickness of the battens. In case of multiple battens, insulation material must be secured against sagging between vertical battens with insulation holders, in accordance with the instructions of the insulation manufacturer. Vertical base battens (min. 30 mm x 50 mm) are to be fixed with stainless steel screws at a distance of max. 40 cm, horizontal counter battens at a distance of max. 60 cm, connected with the base or counter battens. Battens must be aligned vertically and horizontally in one plane. Unevenness can be levelled out with assembly wedges (Item no. 0 50 12 29) (see page 7).

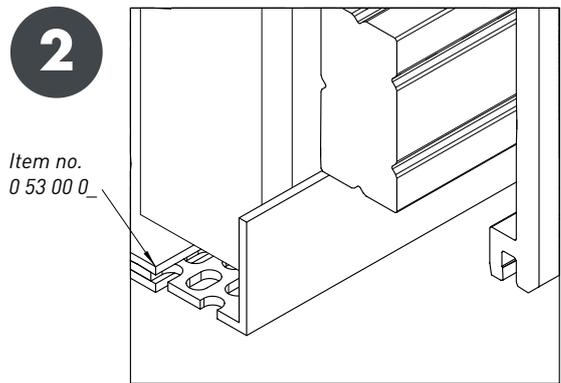
Installation

vinylTherm facades incorporate 20mm high "legs" which create the gap required for perfect through ventilation when installed vertically. A bottom vent profile 23/50 (Item no. 0 50 25 01) is aligned horizontally to accommodate the lowest vinylTherm facade profile. vinylStone facades are usually installed horizontally, from bottom to top, and connected with the tongue and groove system. Vertical joints from one vinylStone profile to the next are covered by millings at the profile ends. For vinylStone a space trim (Item no. 0 21 90 11) is fixed horizontally.

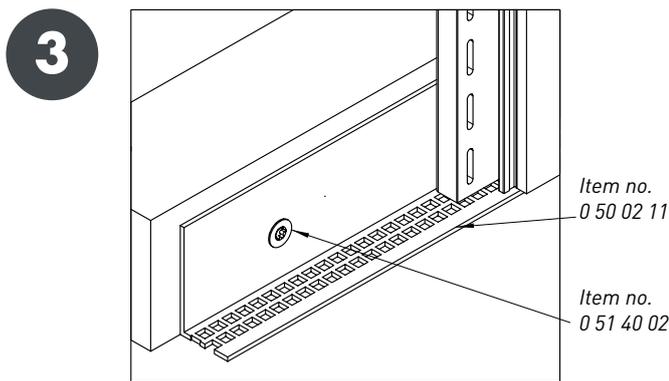
Space trim + bottom vent



Base end profile Varix 60/90



Bottom vent profile 23/50

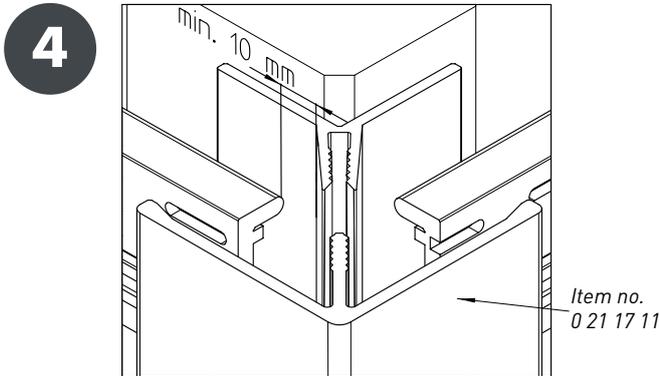


Upper and lower facade ends must be designed in such a way that ventilation of the facade is guaranteed. Ventilation cross-section required by the technical regulations is at least 50 cm² per 1 m wall length. Free rear ventilation cross-section is at least 200 cm² per meter. To prevent small animals from entering the ventilation space, a bottom vent profile 23/50 (Item no. 0 50 02 11) for vinylTherm; alternatively an alu-bottom vent profile (Item no. 0 50 03 01) for vinylStone, is attached to the lower end of the facade. Alternatively, the Varix base end profile may be used. The entire substructure is covered by this. Ventilation profiles must have a distance of at least 20 mm from the floor!

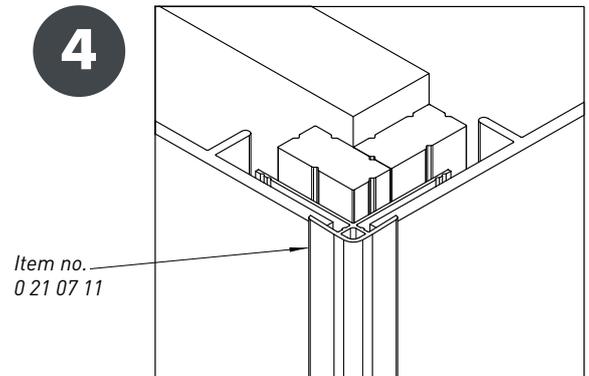
Attention!

Prior to fixing the vinylTherm/ vinylStone facade profiles the under parts of the 2-part accessory profiles have to be fixed onto the sub-construction. Knock the visible front of the upper part into the under part with a rubber hammer. Accessory profiles are to be fixed with countersunk head screws (Item no. 0 51 40 02) at least every 30 cm.

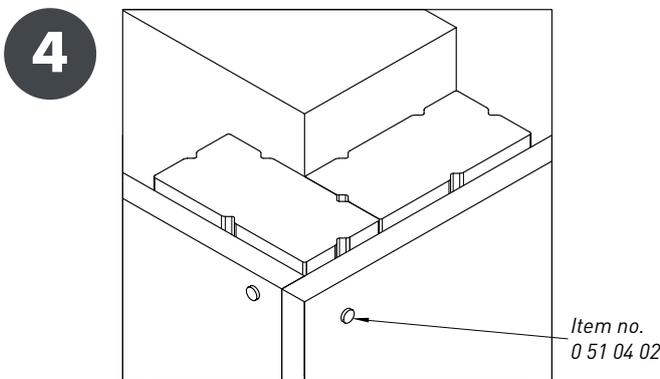
Corner profile 55/30 2-part



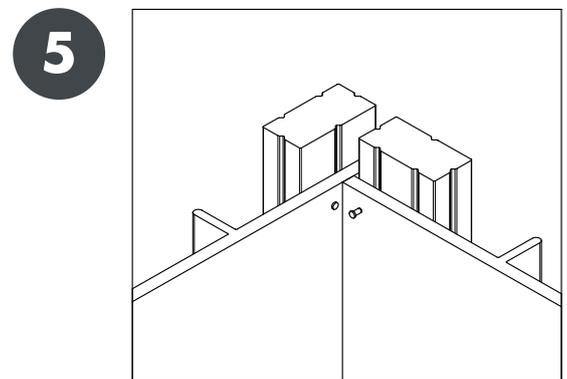
Corner profile 60/15



External corner natural

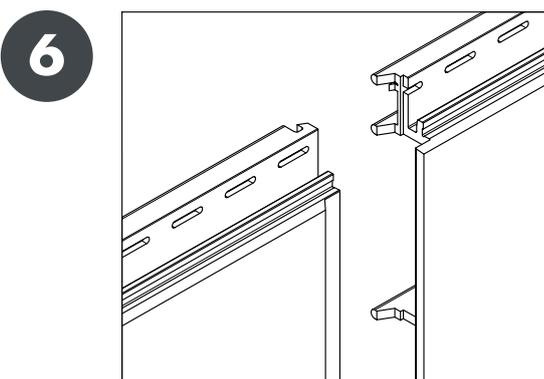


Internal corner natural

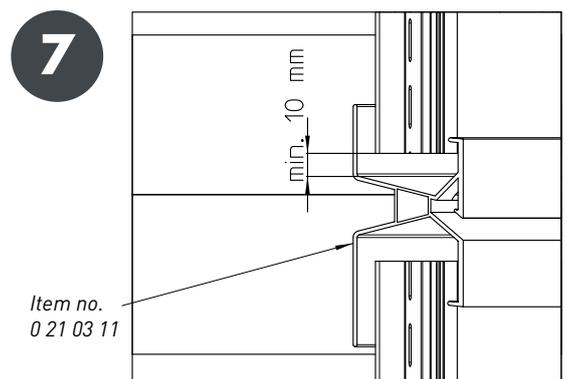


For natural corners the vinylTherm/ vinylStone facade profiles are butted against each other and fixed with fixing pins (Item no. 0 51 04 02) onto a space trim (Item no. 0 21 90 11) at least every 10 cm.

vinylStone joint



X-profile 43/60



For joint formation use the X-profile 43/60 (art.no. 0 21 03 11) with integrated drainagechannel at the top. Sufficient free space must be available to ensure rear ventilation.

Attention!

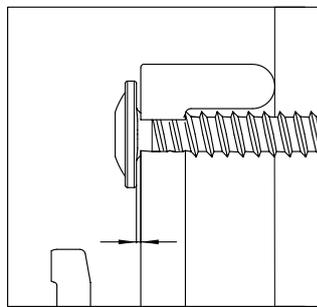
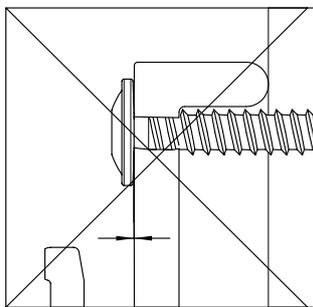
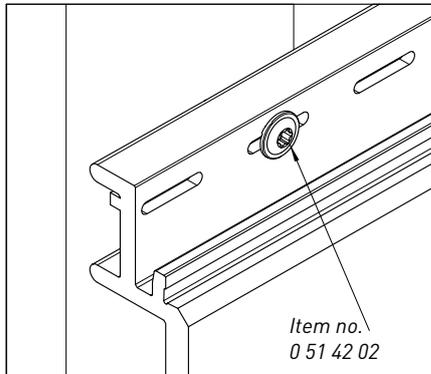
With a temperature change of 10 °C - in the unassembled state - vinylTherm/vinylStone facade profiles shrink/ expand by 0.6 mm per meter. This corresponds to a shrinkage or expansion of 3.6 mm for a profile 6000 mm long. It is essential to ensure for expansion there is enough space at the profile ends to other fixed components. Space is min. 10 mm. The same applies to the installation of accessories. vinylTherm/vinylStone facade profiles should not be installed below temperatures of 5 °C.

Fixing

Fixing of vinylTherm/vinylStone facade profiles takes place in the middle of the punched elongated holes on the upper edge of the profile. A fixed point must be set through the solid material at half the profile length. Stainless steel screws are to be used (Screw with button head 4 x 40 mm, Item no. 0 51 42 02). vinylTherm ca. 12 screws/m² and vinylStone ca. 15 screws/m².

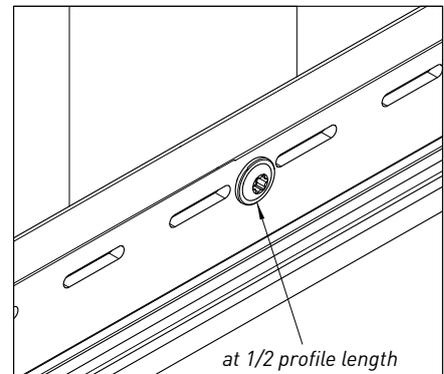
Fastening screw

8



Fixed point

9



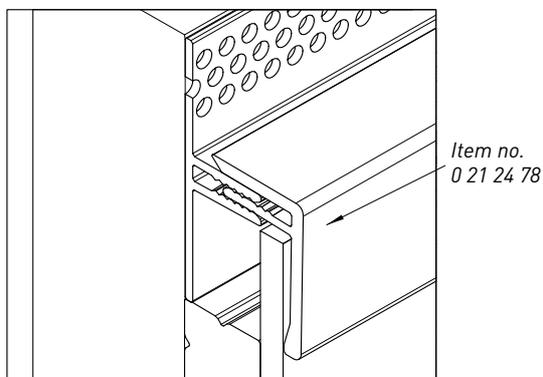
Fastening screws must each sit in the middle of the elongated holes and must not be tightened under tension.

Upper facade finish

To cover the cut edge and to allow for ventilation, a 2-part top vent profile with ventilation openings (Item no. 0 21 24 78) or a top vent profile 45/39 (Item no. 0 21 12 11) is installed at the top of the facade.

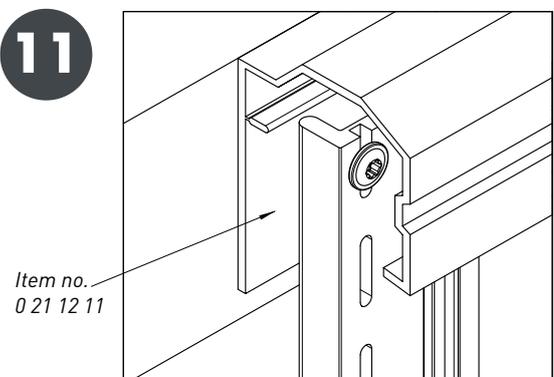
Top vent profile 2-part

10



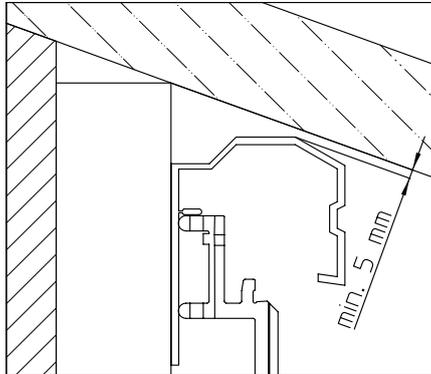
Top vent profile 45/39

11

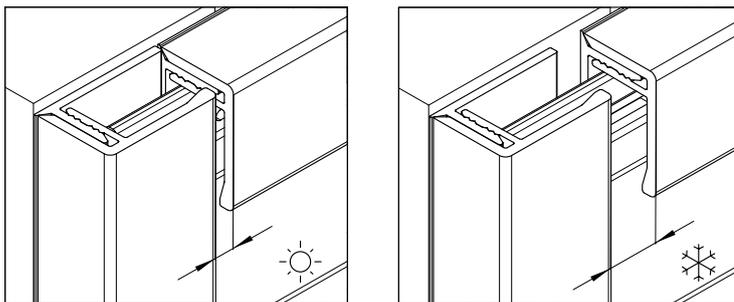


For vinyStone alternatively the top vent profile 45/39 may be used to cover cut edges. A sufficient distance to adjacent components must be left for ventilation.

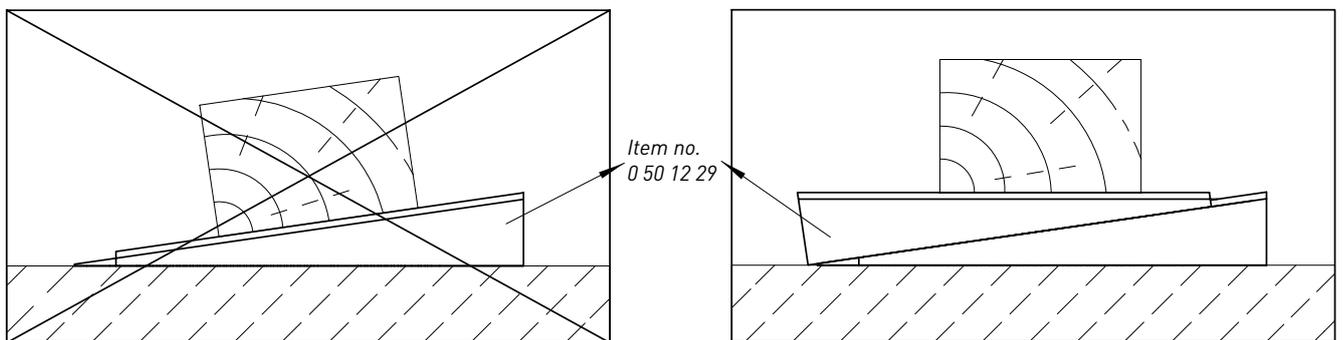
Top vent detail



When temperature rises the accessory profiles are also subject to thermal expansion. It is essential to ensure for expansion there is enough space at the profile ends to other fixed components. The upper parts of vertically mounted 2-part accessory profiles are to be fixed to prevent slipping in the upper area, e.g. with assembly adhesive, silicone or screws.



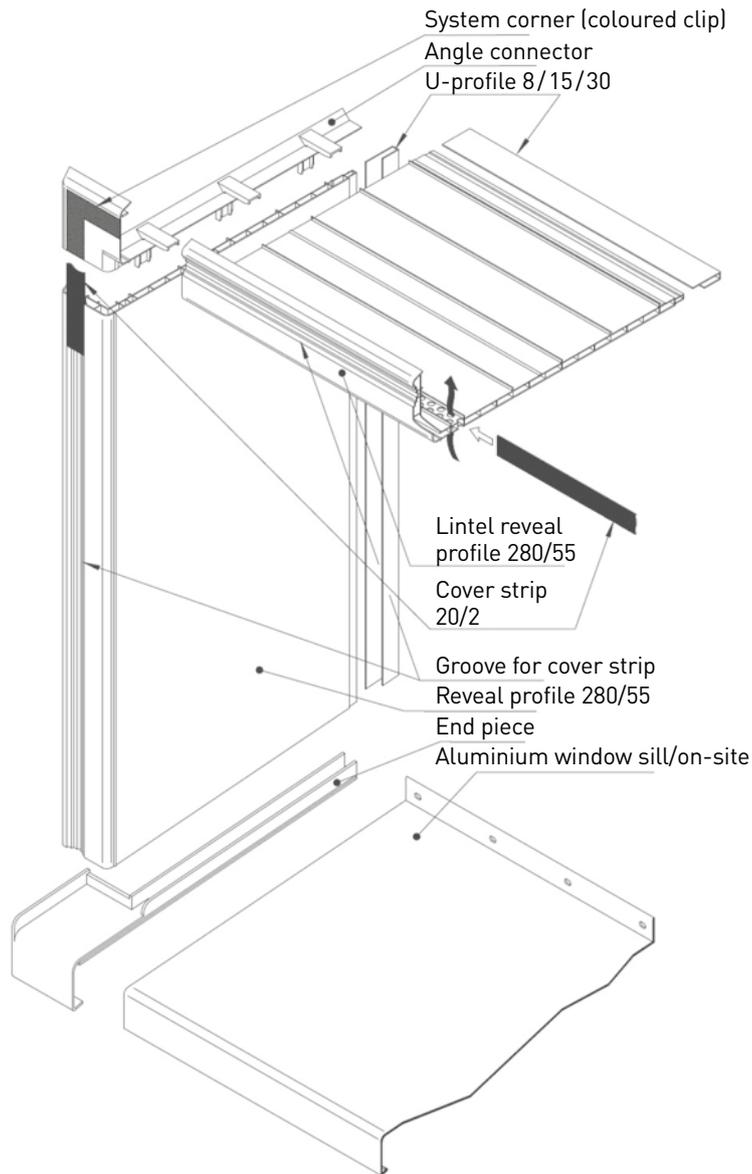
Assembly wedge



Unevenness in a wall can be levelled out with assembly wedges. Avoid twisting the battens. If facade profiles are mounted on twisted or uneven substructures, warping can occur.

Framing of windows & doors

The vinyCom reveal system is used to line the window and door reveals.



A gap of at least 5 mm must be left between the upper edge of the vinyTherm/ vinyStone facade profile and the lower edge of the window sill to ventilate the facade surface under the window sill. In order to avoid soiling the facade surface, we recommend a window sill overhang of at least 3 cm - 4 cm and the installation of window sill end pieces (Item no. 0 63 60 __).

General information

Use

vinylTherm/ vinylStone stonechip facade profiles are manufactured from high quality rigid plastic raw materials with natural stonechips welded into them. The manufacturing methods are state-of-the-art and include a strict procedure of continuous quality control.

Color consistency, production errors & damage

vinylTherm/vinylStone facade profiles bear the manufacturing date resp. an identifying code number on the back. Being a natural stone material slight colour variations are inevitable from batch to batch. In order to ensure facade surfaces are largely identical in color, it must be ensured that only panels from the same batch are used for each elevation. Never mix batches on elevations. Incorrect profiles are to be sorted out and exchanged free of charge if the complaint is justified. The person carrying out the work is responsible for already assembled, defective profiles.

Treatment

vinylTherm/vinylStone facade profiles and accessory profiles must not be rubbed against each other with the visible side. Do not bring any hard or sharp objects into contact with the visible side. Do not place scaffolding, ladders, etc. against the facade and accessory profiles.

Execution and Cutting

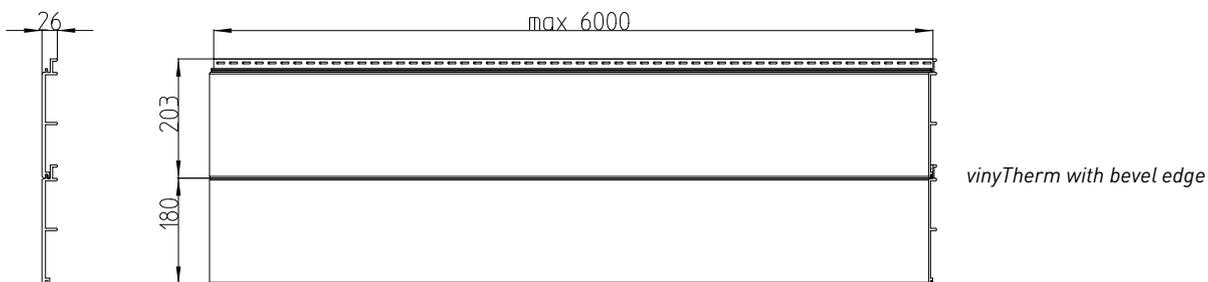
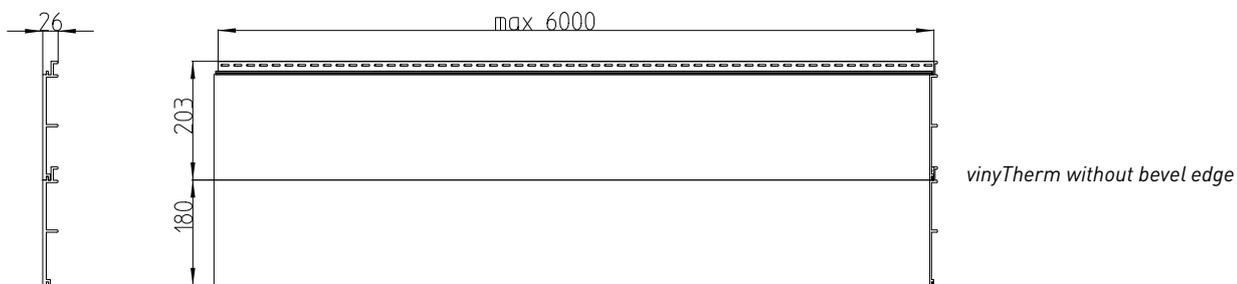
vinylTherm facade profiles are mounted onto the framework, tongue and groove interlock gently when pushed together. Don't press profiles together. To fabricate and install vinylTherm/ vinylStone stonechip cladding you will need: Chopsaw, jig saw, disk grinder and Stanley knife. For the installation of natural corners a router should be used. The accessories can be sawn or drilled using traditional joinery tools and methods.

Care instructions

Proper cleaning with commercially available cleaning agents. No abrasives or solvents. vinylTherm and vinylStone facade profiles can easily be cleaned in case of minor dirt with a high pressure cleaner with a wide jet nozzle (max. 100 bar, distance to the facade, no less than approx. 50 cm). In case of heavier soiling, a special facade cleaner should be used for the respective type of soiling (algae, soot, etc.).

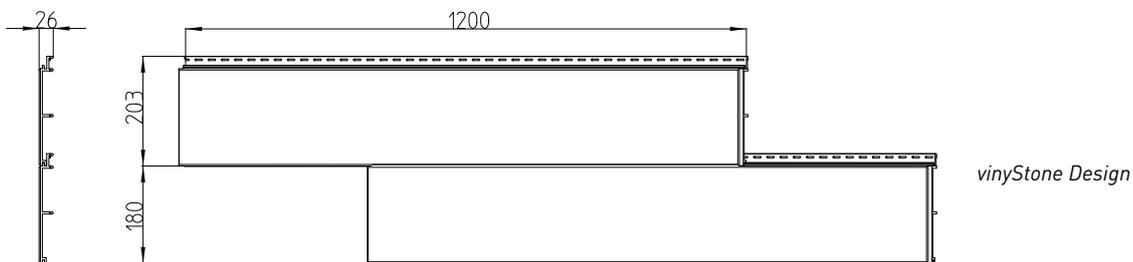
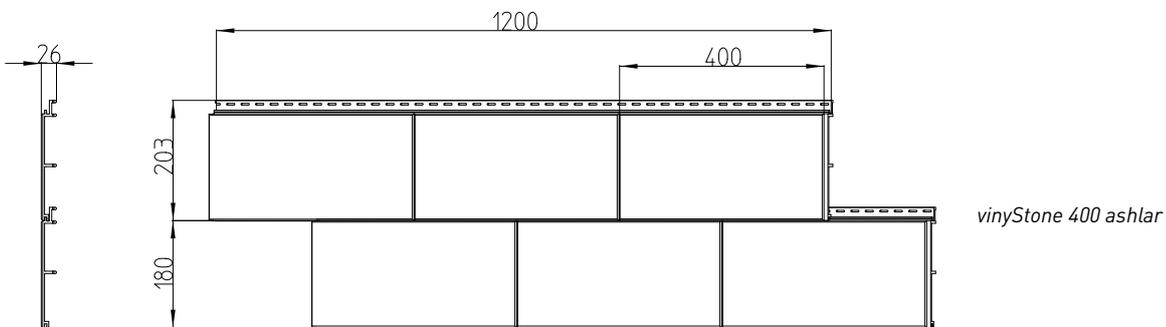
Technical data vinyTherm

Profile width	203 mm	
Cover width	180 mm	
Thickness	26 mm	
Length	6000 mm	
Weight	6.4 kg/m ²	
Raw density profile	coated 1.01 g/cm ³ uncoated 0.66 g/cm ³	DIN EN ISO 845
Coefficient of linear expansion	ca. 0.062 mm/m x K	ISO 11359-2
Elasticity module	646 MPa	DIN EN ISO 527-2
Tensile strength	≥ 14.5 MPa	DIN EN ISO 527-2
Tearing strength	≥ 13.5 MPa	DIN EN ISO 527-2
Elongation at break	33 %	DIN EN ISO 527-2
Elongation at rupture	(V = 5 mm/min) ≥ 20.0 %	DIN EN ISO 527-2
Flexural strength	coated 18.5 MPa, uncoated 29.0 MPa	DIN EN ISO 78
Impact strength code	coated 23.10	DIN EN 13245-2
Modulus of elasticity	coated 646.0 MPa, uncoated 1197.0 MPa	DIN EN ISO 527-2
Coefficient of linear extension	ca. 0.062 mm/mK	ISO 11359-2
Heat conductivity	uncoated 0.06 W/mK	DIN EN ISO 22007-1
Water absorption	coated < 0.6 %, uncoated 0.1 %	DIN EN ISO 62
Absorption	≤ 0,5 Grad αe	DIN EN 410



Technical data vinyStone

Profile width	203 mm	
Cover width	180 mm	
Thickness	26 mm	
Length	1200 mm	
Weight	6.7 kg/m ²	
Raw density profile	coated 1.01 g/cm ³ uncoated 0.66 g/cm ³	DIN EN ISO 845
Coefficient of linear expansion	ca. 0.062 mm/m x K	ISO 11359-2
Elasticity module	coated 646 MPa, uncoated 1197.0 MPa	DIN EN ISO 527-2
Tensile strength	14,5 MPa	DIN EN ISO 527-2
Elongation at break	20.0 %	DIN EN ISO 527-2
Strength at rupture	13.5 MPa	DIN EN 527-2
Bending modulus	1490 MPa	DIN EN ISO 178
Flexural strength	coated 18.5 MPa, uncoated 29.0 MPa	DIN EN ISO 178
Flexural strain at flexural strength	4.0 %	DIN EN ISO 178
Impact strength code	23.10	DIN EN 13245-2
Water absorption	coated 0.6 %, uncoated 0.1 %	DIN EN ISO 62
Absorption	0.5 Grad αe	DIN EN 410
Heat conductivity	0.06 W/mK	DIN EN ISO 22007-1



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