

## CONTENT

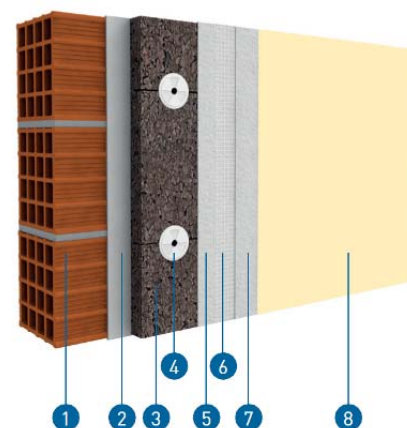
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## 1. DESCRIPTION

**SecilVit CORK** is a composite system of external thermal insulation (designated by the acronym ETICS, from the Anglo-Saxon terminology – *External Thermal Insulation Composite System*) – and it is suited for thermal and acoustic insulation of façades' opaque areas. Its composition based on Cork and Natural Hydraulic Lime provides a series of distinct characteristics enhancing the high permeability to this system.

**SecilVit CORK** is constituted by thermal insulation panels of cork black agglomerate **SecilVit Painel ICB**, which are directly fixed to standard supports, such as masonries and concrete, or on these covered with render, for which it is used the fixing mortar **ADHERE Vit ecoCORK**. This product is also used in the execution of the panels' leveling layer, reinforced with the incorporation of a glass fiber net, **SecilVit Rede 160**, to improve resistance to cracking and to shock. In areas more exposed to possible mechanic aggression, the system is also strengthened with the incorporation of a reinforcement net **SecilVit Rede 343**. The system's finishes should be carried out with one of the following systems: **REABILITA Cal Acabamento**, primer **SecilTEK AD 25** and painting with silicate paint **SecilTEK SP 01**; or anti-alkaline primer **SecilTEK AD 20** and acrylic finish **REVDUR**. Apart from the decorative attributes, these types of finishes have also protection functions. The system includes auxiliary components, such as mechanical fixing anchors and corners, startup, drip pan profiles, among others, depending on the project's requirements.

### SecilVit CORK – main constituents



- 1 - Support
- 2 - Adhere Vit ecoCORK
- 3 - Cork black agglomerate panel (ICB)
- 4 - SecilVit Bucha (Anchor)
- 5 - Adhere Vit ecoCORK
- 6 - SecilVit Rede 160 (glass fiber net)
- 7 - Adhere Vit ecoCORK
- 8 - REABILITA Cal Acabamento (Finish Lime)

## 2. FIELD OF USE

**SecilVit CORK** is intended for thermal and acoustic insulation of the opaque surrounding of the buildings façades, contributing for its energy performance and thermal, acoustic and hygrothermal comfort. The system can be applied directly on supports of masonry (ceramic bricks, concrete blocks or aerated concrete blocks), concrete (structures and or concrete elements). It is equally suited for the application on these supports previously covered with leveling renders with suitable mechanical characteristics, such as **MAXDUR**. **SecilVit CORK** is also suited for renovation/thermal and acoustic rehabilitation of buildings,

enabling its application on existing supports, such as old masonries, painted renders, ceramic coverings, among others. In these cases we recommend to previously consult our technical services.

The system can be applied on non-vertical surfaces, as long as they present an inclination higher than 45°.

The system's products for finished should be used preferably on light colors. The finishes are intended to protect the system and provide a uniform color to the walls. The application of dark colors should be limited to wall areas protected from climatic agents (see point 7.4), for hygrothermal reasons.

### 3. SYSTEM CHARACTERISTICS

CHARACTERISTICS		VALUE	REFERENCE VALUES ETAG 004
Water absorption after 1 h	Without finish	0,20 kg/m <sup>2</sup>	< 1,00 kg/m <sup>2</sup>
	With finish A1 <sup>(1)</sup>	0,10 kg/m <sup>2</sup>	
	With finish A2 <sup>(1)</sup>	0,05 kg/m <sup>2</sup>	
Water absorption after 24 h	Without finish	0,48 kg/m <sup>2</sup>	< 1,00 kg/m <sup>2</sup>
	With finish A1 <sup>(1)</sup>	0,52 kg/m <sup>2</sup>	
	With finish A2 <sup>(1)</sup>	0,45 kg/m <sup>2</sup>	
Reaction to fire		B-s1- d0	-
Hygrothermal behavior		Satisfactory	Satisfactory
Behavior to ice-deice		Resistant	Water absorption after 24 h in system without finish < 0,5 kg/m <sup>2</sup>
Resistance to shock	Standard net	Use category II <sup>(2)</sup>	-
	Reinforced net	Use category I	
Equivalent air thickness	Reinforced base layer + finish A1 <sup>(1)</sup>	0,71 m	≤ 2,00 m
	Reinforced base layer + finish A2 <sup>(1)</sup>	0,76 m	
Leveling layer adherence to thermal insulation/ Standard of rupture <sup>(4)</sup>	Standard net	0,10 MPa/ C	≥ 0,08 MPa or PR-C
	Reinforced net	0,10 MPa/ C	
	Standard net + Finish A1	0,14 MPa/ C	
	Reinforced net + Finish A1	0,12 MPa/ C	
	Standard net + Finish A2	0,12 MPa/ C	
	Reinforced net + Finish A2	0,14 MPa/ C	
Adherence of the fixing mortar to thermal insulation/ Standard of rupture <sup>(4)</sup>	At initial state	0,08 MPa/ C	≥ 0,08 MPa or PR-C
	48 h of immersion + 2h at 23°C/ HR 50%	0,06 MPa/ C	≥ 0,03 MPa or PR-C
	48 h of immersion + 7 days at 23°C/ HR 50%	0,06 MPa/ C	≥ 0,08 MPa or PR-C
Adherence of the fixing mortar to support/ Standard of rupture <sup>(4)</sup>	At initial state	0,38 MPa/ B	≥ 0,25 MPa
	48 h of immersion + 2h at 23°C/ HR 50%	0,28 MPa/ B	≥ 0,08 MPa
	48 h of immersion + 7 days at 23°C/ HR 50%	0,91 MPa/ B	≥ 0,25 MPa
Resistance to fungi	Finish A1 <sup>(1)</sup> Finish A2 <sup>(1)</sup>	Satisfactory resistance	-

CHARACTERISTICS	VALUE	REFERENCE VALUES ETAG 004
Durability and suitability to use	Satisfactory behavior	-
System's thermal resistance Minimum (insulation thickness 30 mm) Maximum (insulation thickness 300 mm)	$R_{min} : 1,02 \text{ m}^2.KW$ $R_{min} : 7,52 \text{ m}^2.KW$	-
Noise insulation and aerial sounds Standard support (5) Standard support + Secil Vit CORK (60 mm)	44 dB (-1;-5) 50 dB (-2;-6)	-

- Finish system A1 : REABILITA Cal Acabamento + SecilTEK AD 25 + SecilTEK SP 01  
Finish system A2 : SecilTEK AD 20 + REVDUR
- Use categories  
Category I – Applicable in open public areas and exposed to strong shocks, but not subject to misuse;  
Category II – Applicable in areas of limited access or public, above 2 m from wall base.
- System's model applied on a brick masonry wall with  $3\text{m}^2$ . System submitted to hygrothermal cycles prior to adherence tests.
- Standard of rupture (SR): A – Adhesive rupture on the interface; B – Cohesive rupture within the product; C- Cohesive rupture on the support or insulation.
- Standard support: Concrete block masonry wall without ETICS

## 4. METHODOLOGY OF APPLICATION

### 4.1 Preparation of support

Similar to most types of coverings, the application of the **SecilVit CORK** system should not begin before the support is duly cured. It should take at least one month between the execution of the wall and the application of the system. Supports must be sufficiently leveled and regular. Planimetry deviations cannot be higher than 10 mm when checked with a 2 m length ruler. If this condition cannot be ensured, the surface must be leveled through the application of a render with the suitable composition and resistance to the system's support, such as **MAXDUR**, which must present a curing time of one month when the thermal insulation panels are fixed.

Supports must be dry, cohesive and free of dust or release oils, being dry on application of the system. Degraded concrete supports must be repaired, including reinforcement treatment if necessary. Supports with high level of cracking must be repaired whenever the cracks have openings above 2 mm.

In rehabilitation works, supports should be checked as to their consistency, degradation, cracking and water content. Areas that do not present stability should be removed and the ones that are damaged must be repaired. In case of persistent existence of high contents of water in periods with no rain, we do not recommend the application of this type of systems. The origin of the humidity should be previously checked and corrected, so that the system can be executed afterwards.

### 4.2 System startup

The system should be limited in its inferior contour by the aluminum startup profile **SecilVit Perfil de Arranque**, with width suitable to the thickness of the selected thermal insulation panels. These profiles will be placed horizontally, fixed to the support with stainless steel fasteners and anchors, **SecilVit Parafuso de Fixação (Fixing Fastener)**, with not more than 30 cm space in between.

The support area of the startup profile must be leveled (apply a layer of the fixing mortar **ADHERE Vit ecoCORK**) so that it lays perfectly on the surface. If necessary, use the **SecilVit Espaçador (Spacer)** to ensure a perfect alignment of the profile.

Consider having joints with at least 2 mm between tops of the startup profiles, in order to eliminate possible deformations, by using the accessory *SecilVit Ligador (Connector)* in the intersection of the startup profiles.

In cases where the system starts above the ground, the startup profile should be positioned at least 10 cm above the highest quota considered for the external ground, thus preventing degradation of the system by direct contact with it. The lower area should be waterproofed up to at least 20 cm above the startup profile, preventing the penetration of water from the ground into the wall by rise capillary, through the back of the thermal insulation panels.

In case it is considered the start of the buried system, the startup profile is no longer necessary. Also in this case the lower area should be waterproofed up to at least 20 cm above the ground level.

### 4.3 Installation of thermal insulation panels

The thermal insulation panels *SecilVit Painel ICB* should be applied upwards, from the startup profile, ensuring horizontal leveling and supporting each row of panels on top of the previous one.

The insulation panels are placed on the support with the fixing mortar *ADHERE Vit ecoCORK*. The *ADHERE Vit ecoCORK* should be mixed with 5,5 to 6,0 l of clean water for each bag of 20 kg. Mixing should be performed with a low speed mixer until obtaining a homogeneous and lump-free past.

*ADHERE Vit ecoCORK* should be applied on the back of the thermal insulation panel, using the most suitable technique according to the planimetry conditions of the support:

- ▶ On non covered masonry supports, apply the mortar through a perimetral cord with at least 3 fixing points in the centre of the panel, ensuring that the fixing mortar covers between 50 to 60% of the panel's surface (see picture 2). The cord must be placed using a technique that prevents the migration of the fixing mortar to the tops of the panels on application;
- ▶ On leveled surfaces, for example, render surfaces, apply the mortar continuously on the back of the panel with a toothed trowel (8 to 10 mm).

Panels should be vertically positioned in horizontal rows on their larger size. The rows are placed upwards, avoiding that the vertical joints of the previous rows do not coincide (see picture 5). Likewise, on the corners, the tops of the rows of panels must be alternate to ease the system's locking.

Panels must be placed in their definitive position, pressed against the support in such a way as to crush the fixing mortar. At the same time, adjust its contour and superficial planimetry with the adjacent panels, to avoid joints with gaps and misalignments on the surface of the wall sections (see pictures 3 and 4).



1. Fixing startup profile and support waterproofing.



2. Applying *ADHERE Vit ecoCORK* on the back of the panels using the fixing method



3. Placing the panel on the support



4. Fixing the panel by pressing it



5. Placing the panels by rows

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The verticality and the planimetric adjustment of each panel regarding the adjacent panels must be permanently verified, with suitable measuring instruments.

Possible open joints between panels should not be filled with the mortar **ADHERE Vit ecoCORK**, but with strips of the same panel material.

At the spans corners, the panels should be placed not coinciding with their vertices, avoiding that the joints in between correspond to the alignment of the spans edges (see picture 6). This will contribute to reduce the tendency of cracking from the corners of the span.

The placement of insulation panels must be cautious and thorough, namely as to the planimetry in relation to the adjacent panels, to avoid this type of defects all over the façade.

## 4.4 Mechanical fixing of thermal insulation panels

The use of mechanical fixing, complementary to fixing insulation panels, is mandatory in every circumstances of the **SecilVit CORK** application.

This fixing reinforcement is performed by introducing specific anchors **SecilVit Bucha**, in number determined by the operating planner according to the loads considered, namely, due to wind action (see picture 9). The number of anchors to install must not be lower than 6 bolts by  $m^2$  (see pictures 7 and 8).

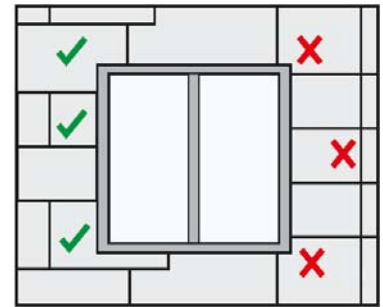
The anchors should have length suitable for the thickness of the insulation panel, to ensure that it penetrates at least 30 mm in the support. The circular heads of the anchors must be pressed in order to crush the surface of the **SecilVit PaineI ICB** panel, so that they are not salient. The resulting small cavities must then be filled with covering mortar, prior to the application of the leveling layer (point 4.6).

## 4.5 Treatment of singular points

The system's edges, such as the corners of buildings and the contours of the spans, are always reinforced using **SecilVit Perfil de Canto (Corner Profile)** on the vertical edges and **SecilVit Perfil de Pingadeira (Drip Pan Profile)** on the horizontal edges. The profiles are fixed directly on the insulation **SecilVit PaineI ICB** panels with the mortar **ADHERE Vit ecoCORK**.

The expansion joints must be respected, interrupting the system, and trimmed with the **SecilVit Perfil de Junta de Dilatação (Expansion Joint Profile)**, applied on the **SecilVit PaineI ICB** panels with **ADHERE Vit ecoCORK**. The internal space of the **SecilVit Perfil de Junta de Dilatação** must be sealed with mastic for external use, on polyethylene foam cord of bottom of joint, with a diameter suitable for the work requirements.

In the panels intersection with hard surfaces (window frames, protruding planes, balconies or flaps, top trims, etc.) there should be an open joint with at least 5 mm, to be filled with elastic and waterproofing material of mastic type, for external use. On the trim with fixed window frames, use in addition the **SecilVit Perfil de Remate com Janela (Trim Profile with Window)** in PVC with net.



**CORRECT**      **INCORRECT**

6. Scheme of panels placement



7. Drilling holes for putting mechanical fixing



8. Placement of **SecilTEK Bucha**

FIXING IN STANDARD SURFACE  
**6/7\* elements per m<sup>2</sup>**



FIXING NEXT TO PILLARS IN BUILDING  
UP TO 8 M HEIGHT  
**Approxim. 8\* elements per m<sup>2</sup>**



FIXING NEXT TO PILLARS IN BUILDING  
MORE THAN 8 M HEIGHT  
**Approxim. 10\* elements per m<sup>2</sup>**



\* For class of exposure the mechanical fixing should be reinforced

9. Recommendations nr anchors /m<sup>2</sup>

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The corners of the spans' surrounding area are reinforced with strips of glass fiber net **SecilVit Rede 160**, with approximately 50 cm x 25 cm, perpendicularly positioned to the corner and directly fixed on the insulation with **ADHERE Vit ecoCORK** (see picture 10).

## 4.6 Application of leveling layer

The application of the leveling and reinforcement layer should occur 1 to 3 days after fixing the panels, to guarantee the hardening of the fixing mortar and the mechanical stability of the panels.

The leveling and the reinforcement layer is composed by at least two layers of **ADHERE Vit ecoCORK**, on the surface of the panels **SecilVit Painel ICB**, incorporating a glass fiber net **SecilVit Rede 160** with anti-alkaline treatment.

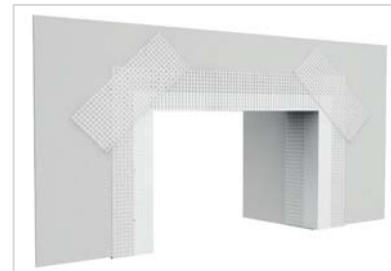
The first layer is spread with the use of a toothed stainless steel trowel (8 to 10 mm), thus ensuring thickness uniformity and the required net distance in relation to the interface with the panels (see picture 11). Incorporate the glass fiber net in the **ADHERE Vit ecoCORK** still fresh, smoothing the net with a metallic trowel, without pressing the mortar too hard (see picture 12). While applying the net ensure lateral overlay between 1 m strips of at least 10 cm.

The system's areas accessible up to 2 m height from the ground, in balconies, terraces or other spaces exposed to potential mechanic aggressions, should be reinforced by incorporation of an additional layer of the **SecilVit Rede 343** net.

The second layer of **ADHERE Vit ecoCORK** should be applied by spreading after the first hardening hours of the 1st layer (6 to 24 hours) (see picture 13). It should have the appropriate thickness to fill all gaps and the glass fiber net, so that it does not become visible. The total thickness of the leveling and reinforcement layer on the **SecilVit Painel ICB** panels should be 4 and 5 mm. The finish surface of the covering mortar must be flat, with no protrusions or creases and with a uniform texture throughout its extension.

The leveling and reinforcement layer must keep a constant thickness and should not be applied on thicknesses to correct serious defects of the insulation panels' planimetry. The use of high thicknesses may cause other anomalies to appear (cracking, waviness, etc.).

The leveling and reinforcement layer should dry for at least 3 days before the application of the final finish with **REABILITA Cal Acabamento** or 14 days before the application of the final finish with **SecilTEK AD 20 + REVDUR**.



10. Scheme of spans reinforcement



11. First spreading of **ADHERE Vit ecoCORK**



12. Incorporation of Net



13. Second spreading of **ADHERE Vit ecoCORK**



14. Application of first layer of **REABILITA Cal Acabamento** (Finish)

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## 4.7 Application of final finish

### 4.7.1 REABILITA Cal acabamentoo + SecilTEK AD 25 + SecilTEK SP 01

This final finish system is constituted by a finish mortar based on natural hydraulic lime, **REABILITA Cal acabamentoo** and a painting scheme based on silicates composed by the primer **SecilTEK AD 25** and silicate paint **SecilTEK SP 01**.

Spread **REABILITA Cal Acabamento** using a metallic trowel directly on the support, in at least two layers, with a thickness not higher than 2 mm per layer (see picture 14). The trowelling of the final surfaces and the following sponging process enables to obtain a smoothed sanded texture (see pictures 15 and 16).

After a drying time of at least 14 days, apply a layer of the **SecilTEK AD 25** primer with the use of a brush or an anti-drop roller.

In the application of the silicate paint **SecilTEK SP 01**, apply at least three layers with a brush or an anti-drop roller (see picture 17). Dilute the first layer with 10% of water in volume and apply the following layers without dilution.

### 4.7.2 SecilTEK AD 20 + REDUR

This final finish system is constituted by the anti-alkaline primer of regularization **SecilTEK AD 20**, which chromatically regulates the base for the application of the acrylic finish **REVDUR**. Its application should be done uniformly with the use of an anti-drop roller (see picture 18).

Apply **REVDUR** with a stainless steel smooth brush by spreading and finalize with a smooth plastic trowel. It is possible to choose different granulometries and colors (see picture 19).

Before applying any product, homogenize conveniently all packages using an electric mixer.

## 4.8 Environmental conditions of application

The application of the **SecilVit CORK** system should not be carried out at atmospheric conditions adverse to the application and drying processes, which happens namely in the following cases:

- ▶ air temperature above 35 °C or below 5 °C;
- ▶ frozen supports;
- ▶ supports too hot;
- ▶ in case of rain or rain forecast or downpours, during and until 48 hours after the conclusion of the system's application;
- ▶ in the presence of strong, hot and dry wind;
- ▶ under direct incidence of intense solar radiation.



15. Trowelling of final surface of REABILITA CAL Acabamento



16. Sponging the surface to obtain smooth sanded finish



17. Application of SecilTEK SP 01 on SecilTEK AD 25



18. Application of primer SecilTEK AD 20



19. Application of acrylic finish REVDUR

## 4.9 Storage of products on work site

The storage on work site of the **SecilVit CORK** system constituents should be done by keeping them in the original packages and in dry and covered place.

The insulation panels must be stored on a horizontal base, firm and clean, with no contact with the ground.

The powdered or paste products should not be used after the validity period has expired, calculated from the date of manufacture which is indicated on the package.

## 4.10 Recommendations on health and safety

The application of the **SecilVit CORK** system neither involves risks of inflammability nor special risks of toxicity, as long as in the areas where the application is taking place there is air renewal. While the application lasts, it should be avoid the possibility of contact of the paste products with the applicators' eyes, for which we recommend the use of individual equipment of proper protection, namely goggles. After the application, we recommend washing face and hands with water and soap.

If the products contact the eyes, we recommend immediately rinsing with water. In case of symptoms of irritation, seek medical advice.

Please consult the different safety datasheets which constitute the system.

# 5. SYSTEM MAINTENANCE AND REPAIRING

## 5.1 Cleaning and general maintenance operations

The regular cleaning of the surfaces covered with **SecilVit CORK** can be done with plain water or under pressure (< 100 bar).

It should be carried out regular inspections to the system applied, particularly to the joints and singular points, to ensure there are no infiltrations. If so, they must be repaired to increase the system's durability.

## 5.2 Localized Repairing

When the inspections identify the need for repairing, this must be done immediately by applicators with special training for that purpose.

The damaged areas must be repaired using system's appropriate components and proceeding with the following steps:

- i) with a sharp knife cut until the insulation to the covering area in a regular manner and with sizes larger than the damaged area in about 100 mm around the contour;
- ii) cut with a disk an insulation area in a regular manner, exceeding the damaged area in about 75 mm in all the contour;
- iii) clean the fixing product or any impurity from the support;
- iv) carefully fix in the clean area an insulation portion equal to the one removed, with appropriate size to fit perfectly in the cut done;
- v) apply the leveling and reinforcement layer on the surface replaced, being cautious not to stain the finish product around and placing the glass fiber net **SecilVit Rede 160** between layers overlapping around 65 mm on the original, well embedded in the layer;
- vi) flatten irregularities and conceal the connection;
- vii) after drying at least three days, apply the finish product, identical to the original one and correct color and texture;
- viii) treat and conceal the connection between the materials;



- ix) If it is required that the repaired area becomes imperceptible, the finish layer should be redone all over the façade section that has been worked on.

If the degradations are not accidental, the respective causes of origin must be eliminated before repairing.

### 5.3 Renovation of aspect

The integral aspect renovation of a wall covered with **SecilVit CORK** can be done with painting using an aqueous acrylic-based paint, after careful cleaning of the wall. It is also possible to apply a layer of **REVDUR** proceeding with the following steps:

- i) Careful cleaning of the wall;
- ii) Application of the new finish.



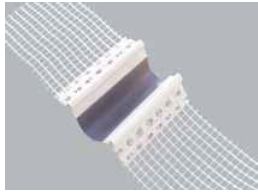
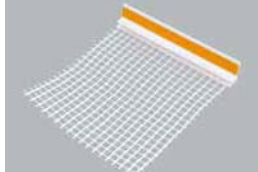
Never use solvent-based products.

## 6. CONSTITUENTS

### 6.1 General description of the main components

CONSTITUENTS	DESCRIPTION	CONSUMPTION	THICKNESS (mm)
SecilVit Painel ICB	Panel of expanded cork agglomerate with 1000 mm x 500 mm and an apparent density of approximately 100 kg/m <sup>3</sup> , with CE label	2 uni/m <sup>2</sup>	20 to 100
SecilVit Bucha	Plastic anchor covered by ETA 08/0172	-	-
ADHERE Vit ecoCORK	Light weight mortar, based on mixed binders, cork aggregates and natural hydraulic lime, for fixing and leveling insulation panels. With CE label.	Fixing – 3,5 kg/m <sup>2</sup> Leveling – 1,4 kg/m <sup>2</sup> /mm	Leveling – 3,0 to 3,5 or 4,0 to 6,0 with reinforcement
SecilVit Rede 160 /343	Net constituted by yarns of glass fiber, with opening mesh of 5 mm x4 mm (160)/ 6mm x 6 mm (343). (with DH 918)	1,10 m/m <sup>2</sup>	-
REABILITA Cal Acabamento	Mortar formulated exclusively from natural hydraulic lime, with siliceous and calcareous aggregates, with CE label.	4 to 5 kg/m <sup>2</sup>	2 to 3
SecilTEK AD 25	Silicate aqueous primer	0,10 to 0,3 l/m <sup>2</sup>	-
SecilTEK SP 01	Silicate aqueous paint	0,3 to 0,5 l/m <sup>2</sup>	-
SecilTEK AD 20	Anti-alkaline primer composed by acrylic resins and mineral fillers.	0,3 to 0,4 l/m <sup>2</sup>	-
REVDUR	Acrylic finish	1,4 to 1,8 kg/m <sup>2</sup>	1,0 to 1,5

## 6.2 General description of the accessories

CONSTITUENTS	DESCRIPTION	SIZES	QUANTITY PER PACK	IMAGE
SecilVit Perfil de Arranque (Startup Profile)	Straight profile in aluminum with drip pan	Thicknesses (mm): 30; 40; 50; 60; 70; 80; 90 e 100	20 un	
SecilVit Parafuso de Fixação (Fixing bolt)	Bolt with anchor for fixing the startup profile	-	200 un	
SecilVit Espaçador (Spacer)	Spacer in PVC for startup profile	Thicknesses (mm); 3; 5; 10; 15	100 un	
SecilVit Ligador (Connector)	Connector for joining startup profiles	Measure: 30 mm	100 un	
SecilVit Perfil de Canto (Corner profile)	Corner profile in PVC, with 10x15 glass fiber net with anti-alkaline treatment	Length (m): 2,5	50 un	
SecilVit Perfil de Junta de Dilatação (Expansion Joint profile)	Profile for expansion joint in PVC with net and deformable membrane	Length (m): 2,5	25 un	
SecilVit Perfil de Remate com Janela (Trim profile with window)	Profile in PVC with glass fiber net resistant to alkali, for trim with window frames	Length (m): 2,5	20 un	
SecilVit Perfil Pingadeira (Drip pan profile)	Drip pan profile in PVC, with glass fiber net resistant to alkali, for horizontal surfaces in windows and doors	Length (m): 2,5	25 un	

## 6.3 System's main components

### 6.3.1 *SecilVit Painel ICB*

#### DESCRIPTION

*SecilVit Painel ICB* is a compact panel in black agglomerate of expanded cork (ICB – Insulation Cork Board), with thermal and acoustic insulation, unputrefiable, dimensionally stable and unchangeable with time, 100% ecological and recyclable, from a renewable raw material.

It is manufactured only with cork granules that when subject to a thermal process release a resin, the suberin, which acts as a natural binding agent.

#### CHARACTERISTICS

CHARACTERISTICS	VALUE	STANDARD
Length	1000 ± 5 mm (Class L2)	NP EN 822
Width	500 ± 3 mm (Class W2)	NP EN 822
Thickness	(55 to 160 mm) ± 2 mm (Class T2)	NP EN 823
Water absorption	≤ 0,5 kg/m <sup>2</sup> (Class WS)	NP EN 1609
Thermal Conductibility λ <sub>d</sub>	0,04 W/m.K	EN 12667
Compressive strength	CS(10)100 ≥ 100kPa	EN 826
Resistance to traction perpendicular to faces	TR(50) ≥ 50 kPa	EN 1607
Tension of cut σ	68 ± 6 kPa	EN 12090
Modulus of cut	1100 ± 200 kPa	EN 12090
Reaction to fire	Euroclass E	EN 13501-1

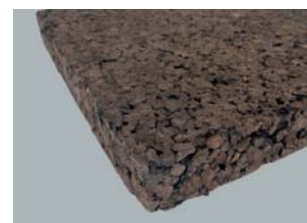
#### HEALTH AND SAFETY

- ▶ The handling of this product does not require special care. However it may cause irritation on more sensitive skins. In this case, wash abundantly with cold water and soap.

#### PACKAGING

##### Pack

- ▶ 7,5 m<sup>2</sup> - 20 mm thickness
- ▶ 5,0 m<sup>2</sup> - 30 mm thickness
- ▶ 4,0 m<sup>2</sup> - 40 mm thickness
- ▶ 3,0 m<sup>2</sup> - 50 mm thickness
- ▶ 2,5 m<sup>2</sup> - 60 mm thickness
- ▶ 2,0 m<sup>2</sup> - 70 mm thickness
- ▶ 2,0 m<sup>2</sup> - 80 mm thickness
- ▶ 1,5 m<sup>2</sup> - 90 mm thickness
- ▶ 1,5 m<sup>2</sup> - 100 mm thickness



### 6.3.2 *SecilVit BUCHA*

#### DESCRIPTION

Plastic anchor with body in polypropylene and glass fiber reinforced polyamide nail, covered by ETA 08/0172 with CE label.

#### CHARACTERISTICS

TECHNICAL CHARACTERISTICS	VALUE
Pullout resistance (see ETA 08/0172)	0,3 – 0,75 kN
Displacement for the maximum dimensioning load, when applied on concrete support	0,1 mm
Displacement for the maximum dimensioning load, when applied on concrete support on masonry	0,3 mm
Spacing between anchors	≥ 100 mm
Edge distance	≥ 100 mm
Thickness of the support	≥ 100 mm

#### PACKAGING

Anchor length	Panel thickness	Quantity by pack
90 mm	30-40 mm	200 un
110 mm	40-60 mm	200 un
140 mm	60-90 mm	200 un
160 mm	90-110 mm	200 un

#### HEALTH AND SAFETY

- ▶ The handling of this product does not require special care.



## 6.3.3 ADHERE Vit ecoCORK

### DESCRIPTION

**ADHERE Vit ecoCORK** is a mortar for fixing and superficial regularization, formulated from mixed binders, cork aggregates and Natural Hydraulic Lime.

### CHARACTERISTICS

HARDENED PRODUCT	VALUE	STANDARD
Flexural strength	≥ 2,5 MPa	EN 1015-11
Compressive strength	≥ 6,0 MPa	EN 1015-11
Adherence to brick and block/ Modulus of Fracture	≥ 0,4 MPa / A and B	EN 1015-12
Ash content at 450 and 900	95,0 % at 450°C 91,5 % at 900 °C	-
Capillarity	Class W2	EN 1015-18
Permeability to water vapor $\mu$	< 10	EN 1015-19
Reaction to fire	Class A1	EN 998-1
pH	12,6	-
Thermal conductivity ( $\lambda_{10, dry}$ )	0,24 W/m.K (P= 50 %)	NP EN 1745

### HEALTH AND SAFETY

- ▶ Irritating to eyes, respiratory system and skin;
- ▶ May cause sensitization by skin contact;
- ▶ Do not breathe dust;
- ▶ In case of contact with eyes, rinse immediately and abundantly with water and seek medical advice;
- ▶ Wear protective clothing and appropriate gloves;
- ▶ Keep out of children's reach.

### PACKAGING

Paper bags of 20 kg in plasticized pallets with 60 bags.

### VALIDITY

12 months.



## 6.3.7 SecilVit Rede 160 /343

### DESCRIPTION

The nets **SecilVit Rede 160** and **SecilVit Rede 343** are constituted by 100% glass fiber yarns, with ISO 9001 certification. The chemical treatment applied, consists in an induction of resin which effectively protects the net against the attack of alkalis from different coverings such as concrete, of synthetic binder or Portland cement renders.

### CHARACTERISTICS

TECHNICAL CHARACTERISTICS	SecilVit Rede 160	SecilVit Rede 343
Yarns	100 % glass fiber	
Mesh opening size	5,0 x 4,1 (±5 %)	6,0 x 6,0 (±5 %)
Tissue total weight	160 g/m <sup>2</sup> (±5 %)	330 g/m <sup>2</sup> (±5 %)
Resistance to traction after aging	20 N/mm (≥ 20)	38 N/mm (≥ 20)
Relative residual resistance at reception conditions (after aging)	61 % (> 50%)	67 % (> 50%)
Chemical resistance	Good resistance to alkalis according to AD	

### PACKAGING

**SecilVit Rede 160** – Rolls of 1 m x 50 ml.

**SecilVit Rede 343** - Rolls of 1 m x 25 ml.



The net **SecilVit Rede** should be stored in a dry place, protected from solar radiation and placed vertically.

### HEALTH AND SAFETY

- ▶ The handling of this product does not require special care. However, it may cause some irritation in more sensitive skins. In this case, wash abundantly with cold water and soap.

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## 6.3.5 SecilTEK AD 20

### DESCRIPTION

*SecilTEK AD 20* is an anti-alkaline primer, based on acrylic resins and mineral fillers.

### CHARACTERISTICS

PASTE PRODUCT	VALUE
Aspect	Several colors
Density	1,50 ± 0,05 kg/l
Viscosity	100 - 120 K.U.
Diluent	Water
Theoretical efficiency	1 l / 5 m <sup>2</sup> / layer

### HEALTH AND SAFETY

- ▶ Irritating to eyes, respiratory system and skin;
- ▶ May cause sensitization by skin contact;
- ▶ Avoid contact with skin and eyes;
- ▶ Wear protective clothing and appropriate gloves;

- ▶ In case of contact with eyes, rinse immediately and abundantly with water and seek medical advice;
- ▶ Keep out of children's reach;
- ▶ EU limit value for this product (Cat A/i): 140 g/L (2010). This product contains maximum of 140 g/L COV, according to Directive 2004 /42/EC.

### PACKAGING

Bucket of 15 l in plasticized pallets with 33 buckets.



### VALIDITY

12 months.

## 6.3.6 REVDUR

### DESCRIPTION

*REVDUR / REVDUR Médio* is 100% acrylic, additive mixed with siloxane, marble granulates and with protection against development of fungi and algae, constituting a textured final finish, available in several colors.

### CHARACTERISTICS

TECHNICAL CHARACTERISTICS	VALUE
Granulometry	REVDUR < 1,0 mm REVDUR Médio < 1,5mm
Density	1650 ± 50 kg/m <sup>3</sup>
Drying time (according to temperature and humidity)	6 to 48 hours
Finish time	10 to 20 min
Viscosity	90 000 -130 000
Theoretical consumption	1,4 to 1,8 kg/m <sup>2</sup> /mm

### HEALTH AND SAFETY

- ▶ Irritating to eyes, respiratory system and skin;
- ▶ Avoid contact with skin and eyes;
- ▶ In case of contact with eyes, rinse immediately and abundantly with water and seek medical advice;
- ▶ Wear protective clothing and appropriate gloves;
- ▶ Keep out of children's reach.

### PACKAGING

Buckets of 25 kg in plasticized pallets with 27 buckets.



### VALIDITY

12 months.

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## 6.3.6 REABILITA Cal Acabamento

### DESCRIPTION

**REABILITA Cal Acabamento** is a dry mortar, formulated exclusively from natural hydraulic lime, suited for the execution of finishes with improved permeability to vapor, in solutions of renovation and rehabilitation of old coverings. It incorporates thoroughly selected siliceous and calcareous aggregates and additives.

### CHARACTERISTICS

HARDENED PRODUCT	VALUE	STANDARD
Compressive strength	Class CS II	EN 1015-11
Adherence to brick and block / Modulus of fracture	≥ 0,2 MPa / B	EN 1015-12
Ash content at 450 and 900	98,7 % at 450°C 91,5 % at 900 °C	-
Water absorption by capillarity after 24 hours	≤ 0,3 kg/m <sup>3</sup>	
Water penetration after capillarity test	< 5 mm	
Permeability to water vapor μ	≤ 15	EN 1015-19
Reaction to fire	Class A1	EN 998-1
pH	12,9	-
Thermal conductivity (λ <sub>10,dry</sub> )	0,54 W/m.K (P= 50 %)	NP EN 1745

### HEALTH AND SAFETY

- ▶ Irritating to eyes, respiratory system and skin;
- ▶ May cause sensitization by skin contact;
- ▶ In case of contact with eyes, rinse immediately and abundantly with water and seek medical advice;
- ▶ Wear protective clothing and appropriate gloves;
- ▶ Keep out of children's reach.

### PACKAGING

Paper bags of 25kg in plasticized pallets with 60 bags.

### VALIDITY

12 months.



## 6.3.7 SecilTEK AD 25

### DESCRIPTION

**SecilTEK AD 25** is an aqueous primer 100% silicate. Its high alkalinity prevents the formation of fungi and algae. **SecilTEK AD 25** has a matt mineral colorless aspect.

### CHARACTERISTICS

CHARACTERISTICS	VALUE
Color	Colorless
Density (at 23 °C)	1,02 ± 0,03
Number of layers	1
Theoretical efficiency	1 l /12 to 14 m <sup>2</sup> / layer
Diluent	Water
Dry to touch	≈ 3 hours
Repainting	8 to 10 hours
Volatile organic compounds Directive 2004/42/CE	EU limit value for this product (cat A/g):50 g/l 2007; 30 g/l 2012 This product contains maximum of 29 g/l

### HEALTH AND SAFETY

- ▶ Wear protective clothing and appropriate gloves;
- ▶ Keep out of children's reach;
- ▶ Avoid contact with eyes and skin;
- ▶ Use only in well ventilated places;
- ▶ Do not discharge waste into sewer.

### PACKAGING

Buckets of 15 l.

### VALIDITY

24 months.



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## 6.3.6 SecilTEK SP 01

### DESCRIPTION

**SecilTEK SP 01** is water-based silicate paint with excellent permeability to water vapor. **SecilTEK SP 01** has a matt mineral look and is available in white and several colors.

**SecilTEK SP 01** is meant to protect the supports with high permeability to water vapor with self-cleaning and waterproofing features. Its high alkalinity prevents the formation of fungi and algae.

### CHARACTERISTICS

CHARACTERISTICS	VALUE
Color	White and Colors
Viscosity (at 23 °C)	102 ± 5 KU
Density (at 23 °C)	1,47 ± 0,03
Number of layers	2 to 3
Theoretical consumption	1 l/8 to 10 m <sup>2</sup> /layer
Diluent	Water
Dry to the touch	≈ 1 hour
Repainting	12 to 14 hours
Volatile organic compounds Directive 2004/42/CE	EU limit value for this product (cat A/a):75 g/l 2007; 30 g/l 2012 This product contains maximum of 29 g/l

### HEALTH AND SAFETY

- ▶ Wear protective clothing and appropriate gloves;
- ▶ Keep out of children's reach;
- ▶ Avoid contact with skin and eyes;
- ▶ Use only in well ventilated places;
- ▶ Do not discharge waste into sewer.

### PACKAGING

Buckets of 15 lt.

### VALIDITY

24 months.



## 7. TECHNICAL DETAILS IN PROJECT

### 7.1 Parapets on Windows

The design of the windowsills must be appropriate to prevent the rainwater from leaking directly on the covering system. This way, it must be ensured a good outwards pendent with a horizontal projection, with drip pan of 3 to 4 cm beyond the façade covering plan, as well as a detail in the side edges (groove or vertical protrusion on the edge) that prevents the water from leaking sideways.

### 7.2 Reinforcement in areas of exposure to shock

The system's areas exposed to actions of particular mechanical aggression, such as those of public access (up to 2 m height near the ground, in balconies or terraces, etc.) should be reinforced with incorporation of glass fiber net **SecilVit Rede 340** and covering mortar. (See point 4.6)

### 7.3 Trims in contact with the ground

The system's trim solution next the ground, especially the definition of its final covering, should consider that it will often be in contact with the water existing in the ground or that it may sprinkle from it, as a result from rainwater or irrigation systems.

So, it should be avoid the use of an organic-based final covering in the range closer to the ground, otherwise it can cause blistering. It should be replaced by another type of covering resistant to prolonged presence of water (ceramic, natural stone or other).

Consider providing an efficient drainage of rainwater, to avoid its accumulation in the ground superficial layers, which could affect the system's durability.

### 7.4 Finish covering

Choose a painting scheme based on silicates or water, with high permeability to water vapor. For better protection, the painting should have algacides and antifungal agents in its

composition to hinder the settlement and growth of biological contaminants.

Select the use of colors with coefficient of absorption of solar radiation  $\alpha$  exceeding 0,7 (see table), except if the façade is permanently protected from solar radiation.

Range of surface color	Coefficient $\alpha$
White	0,2 to 0,3
Yellow, cream, orange and light red	0,3 to 0,5
Dark red, light green, light blue	0,5 to 0,7
Brown, vivid blue, dark blue, dark green	0,7 to 0,9
Dark brown, black	0,9 to 1,0

### 7.5 Rehabilitation of façades

In rehabilitation works, with the increase of the wall thickness, it is common the need of making some adjustments to the system's trims, such as: increase windowsill's extension, replace the upper protections of the sections and redefine the design of the eaves or cornices if existing. These details should be studied individually.

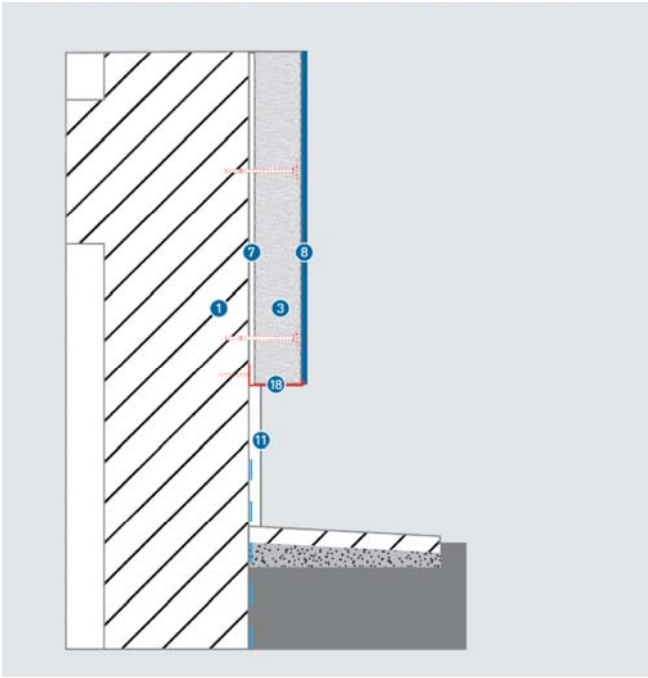
### 7.6 Upper trims of the façade

In detailing the upper trims of the sections, it is essential to prevent the water from leaking directly on the textured surface of the covering, avoiding dragging debris on the surface and its further deposition. Thus, ensure that the inclination of these trims is headed to the interior of the roof and a horizontal projection beyond the finish plan of 3 to 4 cm, with a drip pan profile in its edge.

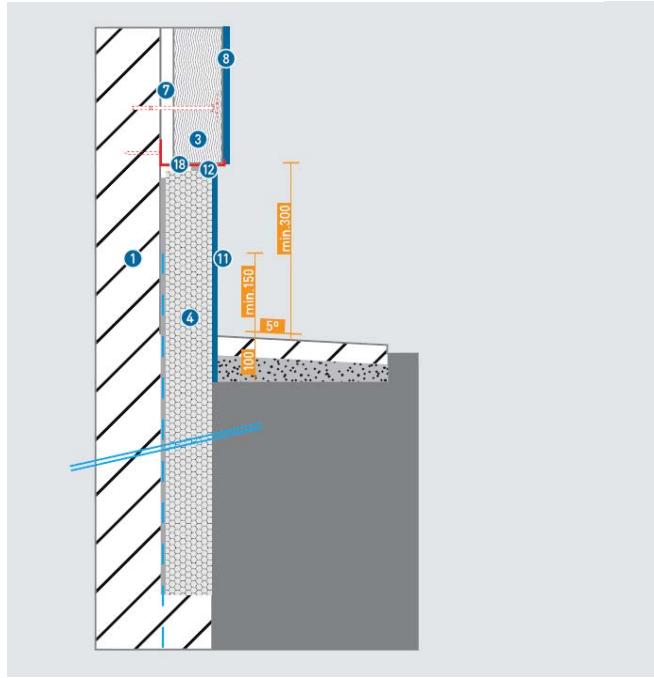


## 8. CONSTRUCTIVE DETAILS

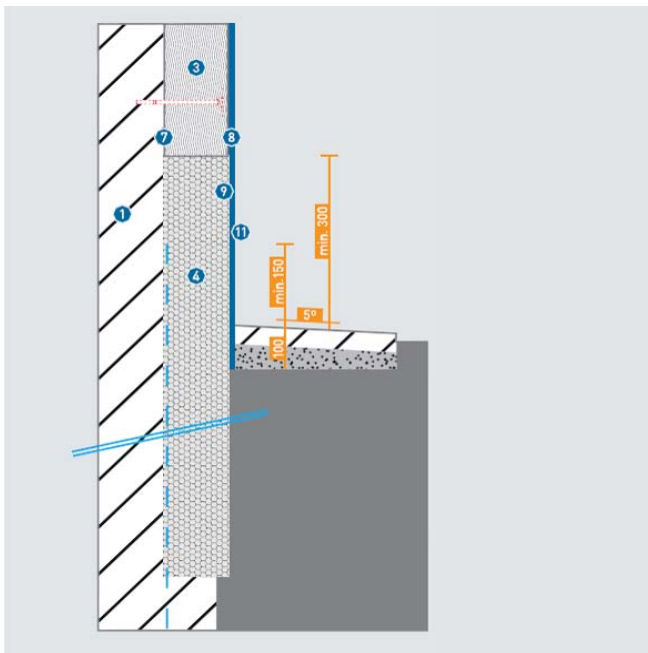
SYSTEM STARTUP IN BURIED BASEMENT WITH NO INSULATION



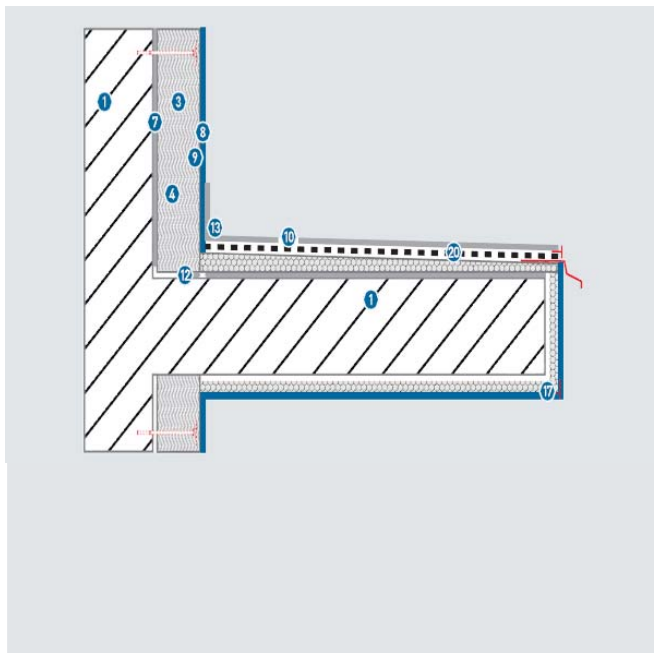
STARTUP OF BURIED SYSTEM WITH INCLINATION



STARTUP OF BURIED SYSTEM



SYSTEM STARTUP ON BALCONIES OR TERRACES

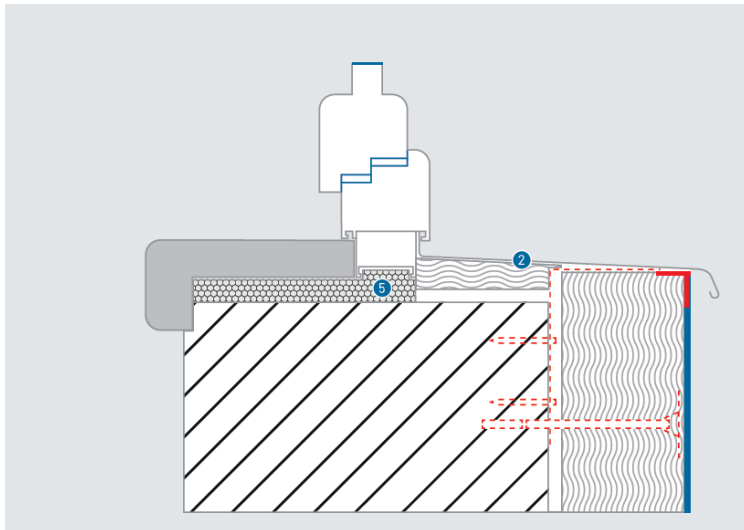


# SecilVit CORK

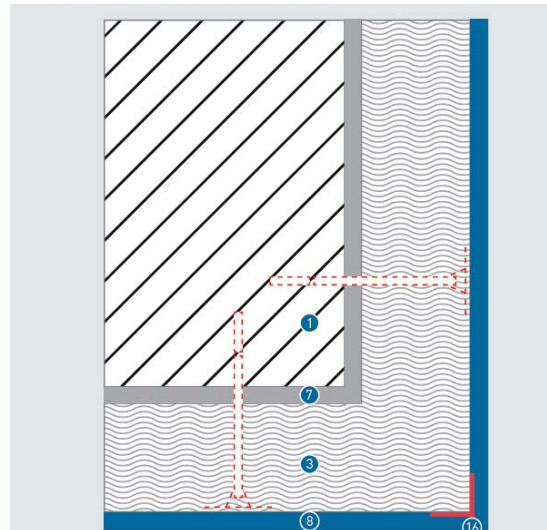
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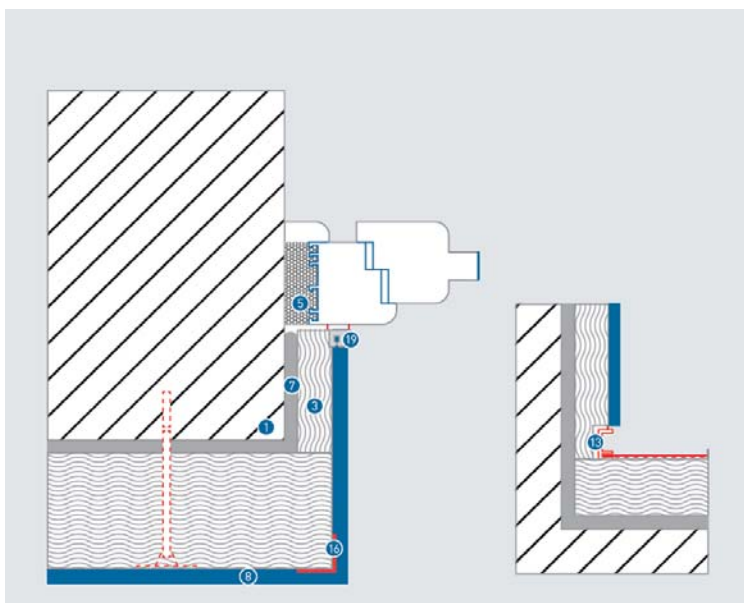
## TRIM WITH WINDOWSILLS



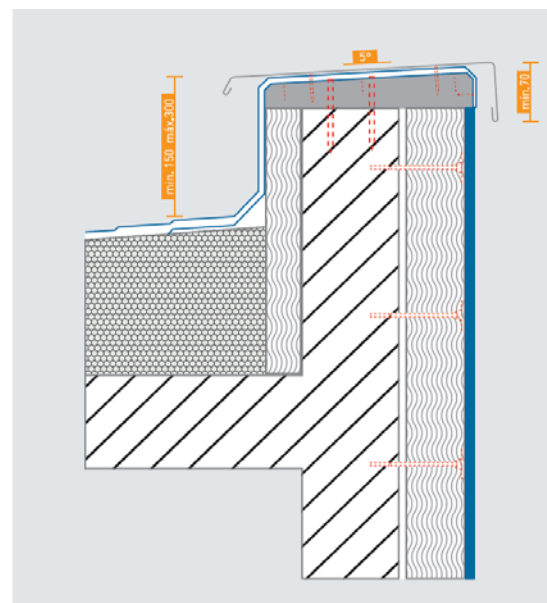
## TRIM IN CORNERS



## TRIM WITH WINDOW FRAME



## TRIM WITH PLATBAND OR WALL



### Captions

- |   |   |  |
|---|---|--|
| 1 – Support                                     | 8 - ADHERE Vit ecoCORK with Secil Vit rede    | 15 – SecilVit Junta de Dilatação / Expansion Joint             |
| 2 – Accessories / capping                       | 160 (net)                                     | 16 – SecilVit Perfil de Canto / Corner Profile in PVC with net |
| 3 – SecilVit Painel ICB                         | 9 – Additional reinforcement - Secil Vit rede | 17 – SecilVit Perfil Pingadeira (Drip pan Profile)             |
| 4 – SecilVit Painel ICB                         | 343 (net)                                     | 18 – SecilVIT Perfil de Arranque (Startup Profile)             |
| 5 – Insulator                                   | 10 – Ceramic covering                         | 19 – SecilVit Remate com Janela (Trim with Window)             |
| 6 – Connection between two different Insulators | 11 – Ceramic covering                         | 20 – SecilTEK HidroSTOP Flex                                   |
| 7 – ADHERE Vit ecoCORK                          | 12 – Foam cord in polyethylene                |  |
|   | 13 – Mastic in polyurethane/polymer MS        |  |
|   | 14 – Expansion flexible membrane              |  |

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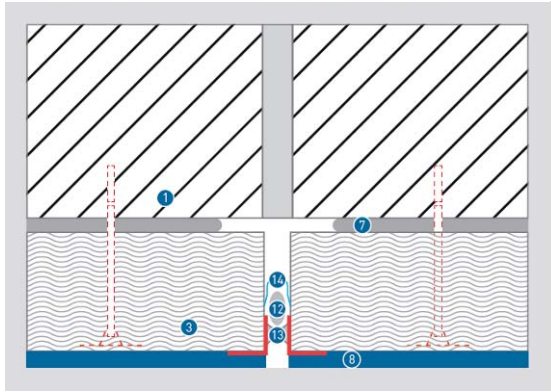


# SecilVit CORK

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## TRIM IN EXPANSION JOINT



*Being in conditions of applying our products out of our reach we do not take responsibility for its misuse. It is the customer's duty to verify the suitability of the product for the intended purpose. In any case, our responsibility is limited to the value of the goods supplied by us. The information contained in the present data sheet may be altered without prior notice. In case of doubt and if you need any further advice please contact our Technical Services.*

*Review of September 2013  
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