

# topcola<sup>®</sup> therm t2



## TECHNICAL DATA SHEET

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# topcola

## therm t2

masonry mortars

mortar for the bonding and covering of thermal insulation sheets (EPS)



- product mono-component;
- impermeable to rainwater;
- with fiber

### use

Mono-component adhesive suitable for bonding and isolating thermal insulation sheets (expanded polystyrene - EPS).

System used in detached housing or apartment buildings (industry, commerce, homes).

### surface

- Brickwork;
- Concrete;
- Cement blocks;
- Cement renders;
- Insulation boards (EPS, Cork (ICB), Rock Wool(MW))



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## recommendations

Protect the outer surfaces of the façade using surface covering products.

Do not apply to surfaces which are horizontal or angled at less than 45°

The insulation should not cover expansion joints or ventilators.

Do not apply when sunny, in rain, or on surfaces which are frozen or at risk of freezing.

Do not apply to surface friable or slightly resistant.

In case of applying isolation in buried walls as described in the singular points. The joints should be minimized by avoiding thermal bridges and condensation.

On masonry surfaces or major irregularities to glue by perimeter. In brackets towed it is recommended to glue continuous with notched trowel.

If you use continuous bonding must be placed 4 bush/m<sup>2</sup> applying these with the glue is still fresh. In collage by perimeter, will be necessary to increase the number of bush for 6 to 8/m<sup>2</sup>, which are placed after the glue.

In applying the sleeves should hit them with a rubber mallet.

In places that require a greater resistance to impact by being subjected to mechanical action (knocks and impacts), such as public places should choose to use insulation boards of high density and these glue with Topcola Therm T3 or with Topcola Therm T1.

In locations subject to shock should enhance the system with double layer of glass fiber network (160g/m<sup>2</sup>) located up to 2 m in height.

Do not carry out the thermal insulation system for outer walls subject by capillarity humidity ascending, as this would determine an increase of humidity of the wall load. In this case, the performance of this system could be preceded creating a barrier against moisture upward (see chapter humidity treatment). Could apply the system inside of the building.

Do not use galvanized steel profiles.

Observe the expansion joints of the support, using appropriate profiles. (Proceed as described in singular points).

The bonding of the insulation boards to be performed one month after the execution of the structure (brickwork) so as to avoid instability problems and drying.

## composition and characteristics

### Composition:

Cement, mineral compounds, re-dispersible powder, synthetic fibers and chemical adjuvant.

### Characteristics:

Application temperature: 5 to 30 °C

Working time of paste: 2 to 3 hours

Waiting time between coats: 1 hour (minimum).

Waiting time for covering with final cover: 3 days.

Painting or organic coatings: 12 days;  
Adhesion to EPS: > 0,11 N/mm<sup>2</sup>

NOTE: Results obtained in standard conditions. These times may vary depending on the application temperature (ie, increase and decrease at low temperatures to high temperatures).

## colour

Grey

## consumption

6 a 7 Kg/m<sup>2</sup> for bonding and covering.

## available in

Sack of 25 Kg.

Pallets with 48 sacks.

## storage

1 year from date of manufacture in unopened container and protected from moisture.



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## preparation of surface

Remove any bumps or excesses. Repair any areas which are fraying or weak.

Repair any cracks, degraded concrete and respective reinforcing.

The surface must be strong, flat and clean.

Always check the degree of surface adherence.

If surfaces are not flat (+1 cm in a 2 metre ruler), they must first be corrected.

The support should not be wet.

## application

### 1º - place the start profiles:

Establish a marking line at 10 cm from the highest point of the ground.

For terraces and stairs, the start level is 10cm from the ground level.

Cut start profiles from insulation.

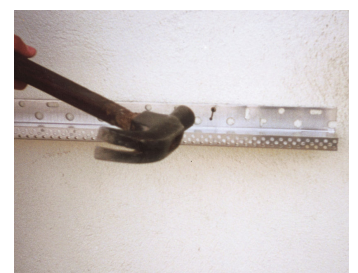
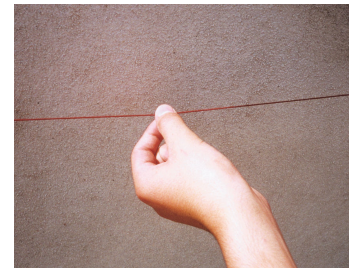
Position the insulation profiles and fix them to the surface.

Fixing points should not be more than 5 cm from the edge of each element. The space between each fixing point should be 30 cm maximum.

Always leave 2 to 3 mm between each profile so as to allow expansion.

Reinforcing these points with fiberglass net mesh (5x5 cm).

The walls in contact with the ground must first be impermeable (use Topeca Dry Flex or Topelastic) to a height above the profile boot, so as to avoid ingress of water into the wall.





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## application

### 2º - placing the thermal insulation boards

The thickness of the plate to be used should be defined by the thermal calculation taking into account the current regulations (Regulation of Thermal Behaviour Characteristics in Buildings - RCCTE).

Mechanically mix a bag of Topcola Therm T2 with approximately 6 – 6.5 litres of water, until a lump free paste is obtained.

Apply Topcola Therm T2 by perimeter, to bond the sheets to the insulation. This method is preferable to continuous bonding on irregular substrates. In regular surfaces is more suitable for continuous bonding with 8mm notched trowel.

Independently of the method of bonding, will always leave a track without glue, 2 cm wide at the boundary of the entire plate to avoid filling of the joints.

If you use continuous bonding put 4 bush/m<sup>2</sup>, applying these with the glue is still fresh. In collage by perimeter, will be necessary to increase the number of bush for 6 to 8/m<sup>2</sup>, which are placed after the drying of the glue.

The points of Topcola Therm T2 should not be next to the edges of the sheets so as to avoid filling the joints.

In areas of great height profiles should be made horizontally in each 5m building height, in order to ensure the stability of thermal insulation.

Place the first line of insulating sheeting using the start profile as a support. Press the sheets to ensure the levelling of the Topcola Therm T2.

The next lines should be placed from bottom to top and with intermediate joints, carefully aligning sheets to avoid thermal bridges.

Joints between boards should be staggered at least 10cm of joints between two profiles, both vertically and horizontally. These do not coincide with any of support joints, for example, gaskets of precast concrete panels.

The insulation should not coating expansion joints or areas of existing ventilation (see singular points).

The sheets should be placed immediately after the application of glue in order to prevent this creates a film which prevents a good bonding.

Check the verticality and planimetry of the surface using a ruler and a level of 2m.

There should be no gaps between boards. Otherwise, it is necessary to eliminate these deficiencies by wearing them with a trowel teeth. This operation should always be made good after the drying of the glue.

The clearance gap existing because of the plates and the joints between boards with a thickness greater than 2mm should be filled with insulating material used and not with glue, to correct the defects or to fill the joints.

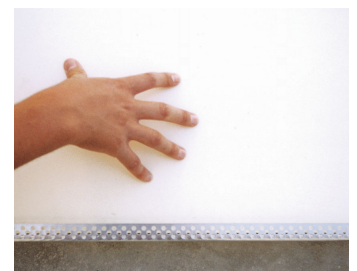
Use of plastic bush of suitable length nail (see accessories, this catalog) in order to fix the insulation boards, as a complementary system for setting the glue.

At the angles of spans, cut sheets in an “L” shape to avoid cracking.

At angles which protrude or go in, make sure that the sheets are correctly fitted to maintain the consistency of joints.

Reinforce all angles of spans by bonding fibre glass sheeting on top at an oblique angle.

In the system links with framework, sills and other projections should be a gap of 5mm, this should be closed with sealant or appropriate profile.



## application

## 3º - coating the thermal insulation boards

All angles must be protected with corner profiles for full insulation.

To attenuate the thickness, press the profile into the adhesive smoothing the angle.

To prepare the covering, cut fibre glass netting to a length corresponding to one floor of scaffolding.

Apply a 1<sup>st</sup> coat of Topcola Therm T2 in vertical stretches and regulate the thickness with a 6 x 6mm serrated trowel.

Bond the fibre glass netting from top to bottom with the help of a smooth metal trowel. Stretch so as to leave no bubbles. It should be stretched at a constant distance (1,5 mm) from insulation sheets.

To avoid cracking, overlay the netting joins by 10 cm. Cut out angles with fibre glass netting of at least 20 cm, and place over the corner profile.

The application of adhesive to coat the board must be made after the adhesive has dried (48 hours minimum) and within 4 days, to avoid deterioration of the surface on the board. In the case of occurrence of deterioration of the insulation board surface, should all sand the surface before applying the coating.

Do not apply to the network directly on the insulation board.

On the lintels of the doors and windows should apply a gutter profile to the network. The function of this profile is to avoid entry of water and enhancing edges.

After hardening of Topcola therm T2 (1-24 hours), to apply appropriate adjustment of the product, a mean thickness of 1-2 mm so as not to allow viewing the network. Proceed to completion when the surface is dry (12 days) in the case of coatings, such Rebetop Decor and Rebetop Gran.

Apply suitable primer depending on the type of finish desired.

The coatings must be light in color.



Location	Type of Finish	Product of regularization	Finishing Product
Outside	Sponge	Tuforte Arear	Exterior Painting High Quality
	Rustic	Topcola Therm T2	Rebetop Color Rebetop Decor
	Coloured Grainy	Topcola Therm T2	Rebetop Gran
Inside	Sponge	Tuforte Arear	Plastic Paint
	Rustic	Topcola Therm T2	Rebetop Color Rebetop Decor
	Coloured Grainy	Topcola Therm T2	Rebetop Gran

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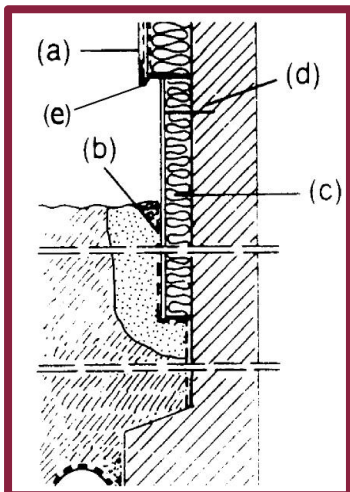
masonry mortars

## treatment of singular points in the insulation system ETICS

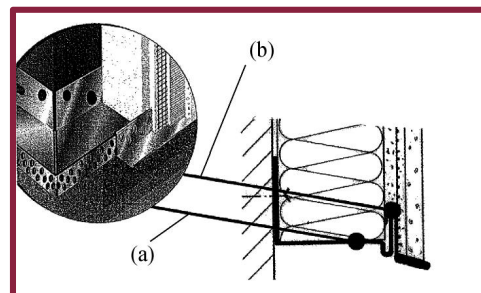
All accessories can be found in this catalog.

### beginning of the isolation system

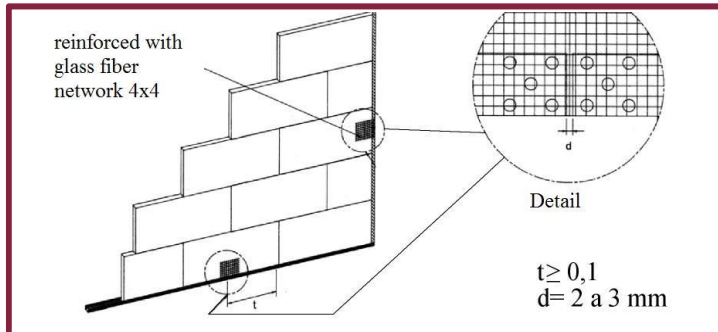
- (a) - Beginning of the isolation system;
- (b)- Topeca Dry Flex or Topelastic;
- (c)- Insulation Boards;
- (d)- Mechanical Fixings ;
- (e) - Profile start of the insulation system.



- (a) - Profile aluminum starting;
- (b) - Terminal profile PVC coating.

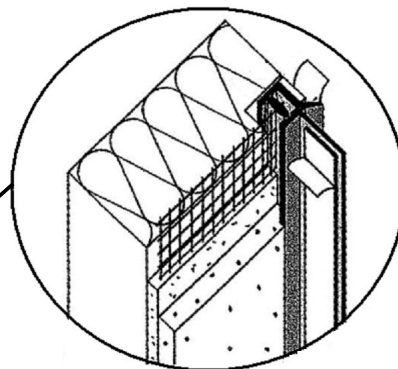
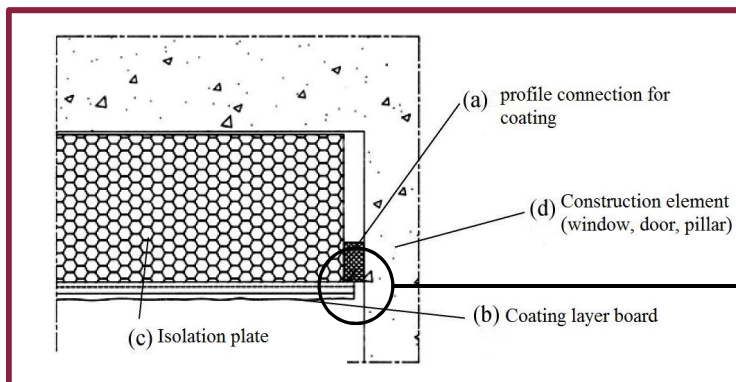


### strengthening the joints between profiles starting and corner



- d (mm)= distance between profiles
- t (m) = distance between the seal plate and gasket profile starting or corner

### Connection system with building elements



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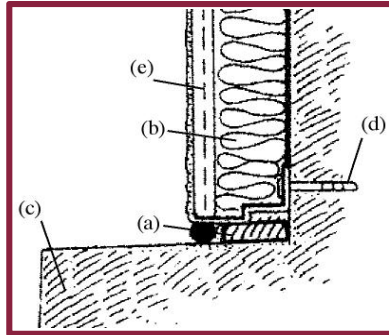
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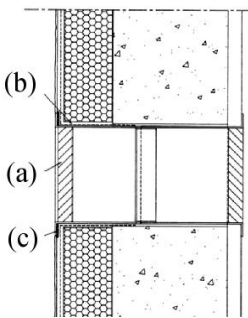
## treatment of singular points in the insulation system ETICS

### stop system on terraces and stairs

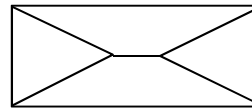
- (a) - Band caulking / joint polyurethane;
- (b) - Insulation Boards;
- (c) - Step or floor of the terrace;
- (d) - Mechanical Fasteners;
- (e) - Coating Products



### detail with the ventilation grille (similar to faucet, pipes, .....

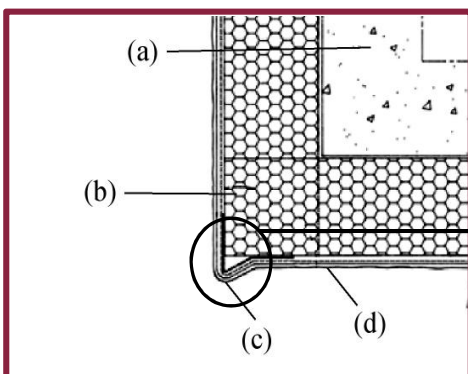


- (a)- Ventilation grille;
- (b) - Network bent glass fiber;
- (c) - Mastic

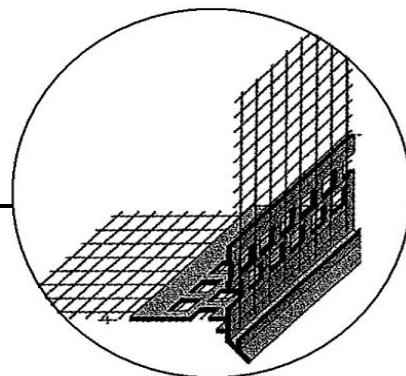


The glass fiber network is folded around the edge of the opening after cut according to the scheme side.

### the underside of a panel



- (a)- Structure;
- (b) - Insulation Board;
- (c) - Profile groove PVC coating;
- (d) - Coating of the plate (glue + Network+ glue + primary + coating)

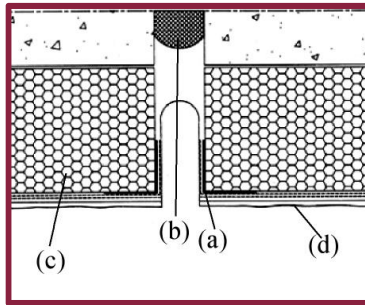




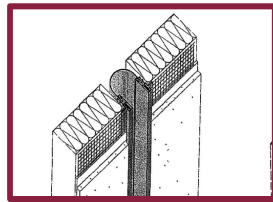
## treatment of singular points in the insulation system ETICS

### structural expansion joint

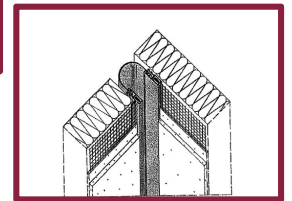
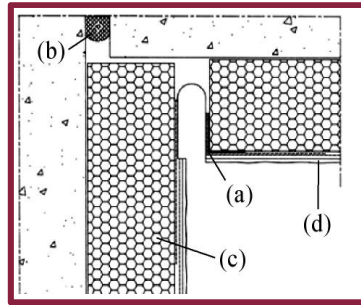
Flat surface



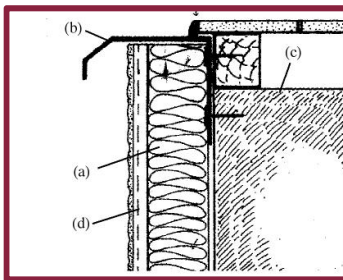
- (a) - Expansion profile coating;
- (b) - Bead for joints;
- (c) - Insulation Board;
- (d) - Coating layer plate (glue + Network + glue + primary + coating)



Corner inside

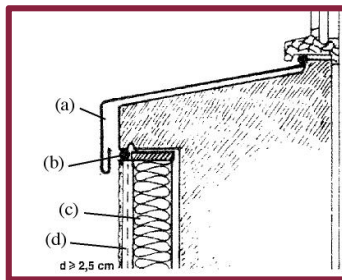


### upper limit of the system (parapet, eaves, stop in a balcony or terrace)



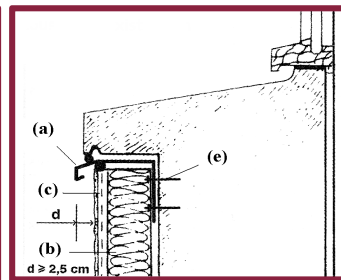
Stop the system on a terrace or balcony with aluminum profile.

- a) - Insulation Board
- b) - Aluminium profile
- c) - Structure
- d) - Products of coating (glue + Network + glue + primary + coating)



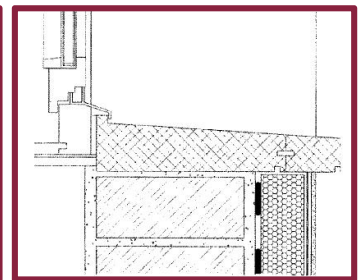
Treatment of support existing renewal. Use of aluminum.

- a) Profile Coverage
- b) caulking band (cord and polyethylene sealant)
- c) Insulation Board
- d) Coating Products

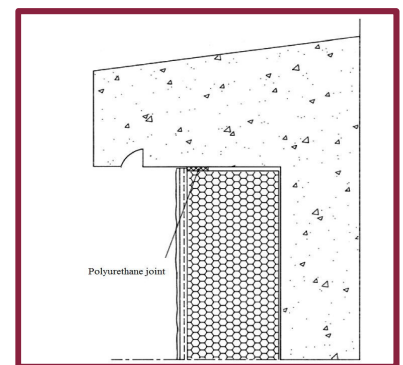


Treatments support existing renewal. Mechanically fixed on the facade of aluminum.

- a) Profile Coverage
- b) Insulation Board
- c) Products-coating (glue + Network + glue + primary + coating)
- d) Mechanical Fasteners



Increase of a stone ledge



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## treatment of singular points in the insulation system ETICS

upper limit of the system (blind walls, terminals, cornice, gable, ...)

- (a) - Isolation plates
- (b) - Profile / capping
- (c) - Products of coating (glue + Network + glue + primary + coating)

