

Sempre TU-200

EPS & XPS boards powder adhesive and basecoat „2 in 1”



For fixing Expanded Polystyrene boards as well as for applying reinforced layer for External Wall Insulation Systems

Technical Data Sheet
No. 2. TU-200
15.11.2009

Characteristics

- high adhesion to mineral substrates and EPS & XPS boards
- vapour permeable
- resistant to weather conditions
- flexible
- reinforced with fibres
- resistant to hairlines and cracks

Scope of use

Sempre TU-200 adhesive & basecoat is designed to insulate external walls of the buildings by using EPS & XPS boards. It is an element within SempreTherm EWIS.

Sempre TU-200 adhesive & basecoat is used for fixing EPS & XPS boards as well as applying the reinforced layer to insulate the newly erected objects and also the buildings to be retrofitted.

Sempre TU-200 is additionally reinforced with fibres, therefore it is more resistant to the formation of hairlines.



Substrate preparation

1. Fixing EPS & XPS boards

Sempre TU-200 adhesive & basecoat shows good adhesion to carrying, compact and dry substrates, such as surfaces of walls, plasters and concretes free from grease, bitumen, dust and other substances decreasing adhesion. The adhesion to the existing plasters and paint coatings should be checked before starting the application.

“Hollow” plasters should be removed. Any losses and uneven surfaces of the substrate below 20 mm should be filled with the TU-200 or covered with cement plaster. Any surface contaminant and other adhesion impairing substances, steam-tight paint coatings and the coats with low adhesion to the substrate should be completely removed, e.g. by means of washing devices operating under pressure. In case of mycological contamination with fungi, moss and algae, the surface of the facade should be cleaned with steel brushes and, then saturated with a fungicide solution of Sempre Alghesil in compliance with technical instruction. The old, not plastered walls, strong plasters and paint coats should be dusted, then washed with water jet and left until they go completely dry. Substrates with high water absorption, e.g. walls made of aerated concrete blocks or silicate blocks should be primed with Sempre Deep-Acting Primer and left for drying for at least 4 hours. Adhesion of TU-200 to the prepared substrate is checked by fixing 10 x 10 cm blocks of EPS boards in a few places and pulling off manually after 2 ÷ 4 days. The load carrying ability of the substrate is sufficient only when the EPS boards are subject to brake. If EPS boards tear off with the adhesive layer, mechanical anchors should be additionally used.

2. Reinforced layer application.

When TU-200 is set [after approx. 2 days], the boards should be ground with abrasive paper and additionally fixed with mechanical anchors. If EPS boards have not been covered with the armoured layer for 2 weeks, then their quality should be evaluated. The yellowed boards with dusting surface should be ground with coarse abrasive paper.

Application

TU-200 should be poured into the measured amount of cool clean water and stirred with the drill by means of a mixer until the homogenous mass is obtained without lumps.

1. Fixing EPS-boards.

The ready adhesive should be applied with a trowel along the board edges forming a strip of 3÷4 cm wide and a few spots with the diameter of approx. 8 cm. Then immediately, the board should be pressed to the wall with a few slight blows of a long float. The properly applied adhesive when pressed should cover minimum 40 % of its surface. In case of even, smooth substrates the mortar should be applied by means of a notched trowel (teeth 10–12 mm). The boards should be fixed tightly one at the other in one surface with the preservation of “brick like manner” of vertical connection.

2. Reinforced layer application.

The ready basecoat of 4÷5 mm-thick layer should be spread along the surface of the boards by means of a smooth long steel float. The fibreglass mesh should be applied on the fresh basecoat (with 100 mm overlaps), and then the second 1 mm-thick layer should be applied and smoothed evenly so that the fibreglass mesh should not be visible. Fresh stains should be cleaned with water while hardened elements should be mechanically removed. The manufacturer guarantees the quality of the product, however, he does not have any influence on the condition and the way of application. In case of any doubts, individual application trials should be conducted. The previously issued technical data sheets become invalid with the issue of this technical data sheet.

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Please note

The reinforced layer should not be applied on highly insulated surfaces and the applied layer should be protected against rain. It is recommended to use scaffolding protection. Application should be performed in dry conditions with the substrate and ambient temperature from +5 °C to +25 °C. All the data refer to the temperature of +20 °C and relative air humidity of 60%. The product parameters may change in other conditions. TU-200 contains cement and causes alkali reaction when mixed with water. Therefore skin and eyes should be protected. In case of contact with eyes, they should be rinsed with water and the general practitioner should be consulted. The content of chromium VI – below 2 ppm till the expiry date.

Storage

Up to 12 months since the production date when stored on pallets in dry cool conditions and in original undamaged packages.

Packaging

25 kg bag

Information on risks

R 36/37/38 - Irritating to eyes, respiratory system and skin.
R 43 - May cause sensitization by skin contact.

Conditions for safe use

S 2 - Keep out of reach of children.
S 22 - Do not breathe dust.
S 24/25 - Avoid contact with skin and eyes.
S 26 - with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37 - Wear suitable protective clothing and gloves.
S 46 - If swallowed, seek medical advice immediately – show the container or label.

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Irritant product

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23 °C and 50 % relative air humidity unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

Other information

The requirements which should be fulfilled by EPS & XPS boards and mechanical fixings and also other details that refer to thermal insulation are described in the system approval guideline ETAG 004. This technical data sheet determines the scope of application of the material and the way of conducting the work, however, it cannot replace the professional preparation of the contractor. Apart from the data provided, the application should be done in compliance with the construction and industrial safety regulations.

Technical data

Base:	cement mixture with mineral fillers and modifiers
Bulk density:	approx. 1.4 gr/cm ³
Mixing ratio:	approx. 5.5 l of water per 25 kg
Temperature of application:	from +5 °C to +30 °C
Pot life:	approx. 1.5 hours
Adhesion:	to concrete > 0.25 MPa to EPS-boards > 0.08 Mpa
Assumed consumption:	
Fixing of EPS-boards:	approx. 4.0 kg/m ²
Armoured layer:	approx. 4.0 kg/m ²
This product possesses:	
- ETA-08/0316,	
NSAI Agreement Certificate No. - 11/0358	

**Should you need support or advice, please consult our advisory service for architects and contractors on the hotline number:
Phone: + 353 1 40 30 811
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