

Sempre TS-100

EPS and XPS boards powder adhesive



For fixing Expanded and Extruded Polystyrene boards for External Wall Insulation Systems.

Technical Data Sheet
No. 1. TS-100
15.11.2009

Characteristics

- high adhesion to mineral substrates and EPS-boards,
- economical in consumption,
- quick increase in strength,
- vapour permeable.

Scope of use

Sempre TS-100 adhesive is designed to fix EPS and XPS boards within SempreTherm [External Thermal Insulation Composite Systems]. Sempre TS-100 adhesive is used for applying to the newly erected objects as well as the buildings to be retrofitted. The applied boards require additional fixing by mechanical fixings. Sempre Universal TU-200 basecoat should be used to apply fibre glass reinforced layer on the EPS-boards.



Substrate preparation

Sempre TS-100 shows very good adhesion to sound and carrying substrates, such as wall, plaster and cement substrates 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 above 20 mm should be filled 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 power-washing. In case of mycological contamination with fungi, moss and algae, the surface of the façade 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 power-washer and left until they will completely dry.

Substrates with high water absorption, e.g. walls made of aerated concrete blocks or silicate blocks should be primed with Sempre Grunt W and left for drying for at least 4 hours.

Application

Sempre TS-100 should be poured into the measured amount of cool clean water and stirred with the drill mixer until the homogenous mass is obtained without lumps. The ready mortar 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 with toothed long float [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. When TS-100 is set [after approx. 24 hours], any unevenness of the boards should be ground with sand paper, then the boards should be additionally fixed with mechanical fixings. The number of fixings should be min. 4 per m². The stripes of 1,5 m wide located along the building edge are exposed to the biggest wind loads and the number of fixings should be increased in these places up to min. 8 per m². Fresh stains should be cleaned with water while hardened elements should be mechanically removed only.

neotherm
approved distributor **sempre therm**

www.neotherm.ie

www.sempretherm.ie

info@neotherm.ie

Manufacturer: Sempre Farby Sp. z o.o.
ul. Gen. Kuźstonia 60, Bielsko-Biala, Poland
+48 33 496 06 09, info@semprefarby.pl

Dublin: Unit 31 Crag Avenue,
Clondalkin Industrial Est., Dublin 22
Office: 01 40 30 811

Limerick: Unit 5 Garryglass Industrial Est.
Ballysimon, Limerick
Office: 061 319 721

Please note

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 %. Faster or slower setting of the adhesive may occur in different conditions. TS-100 powder adhesive shows acrid properties, and cement and lime content 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 ; < 0,00002%.

Storage

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

Packaging

25 kg bag, 48 bags / pallet

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 in dust.
- S 24/25 - Avoid contact with skin and eyes.
- S 26 - In the case of contact 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 and show the container or label.

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Irritant product

Other information

The requirements which should be fulfilled by EPS-boards and mechanical fixings and also other details that refer to thermal insulation are described in the SempreTherm Manual Instruction.

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. 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.

Technical data

Base:	cement and lime mixture with mineral fillers, microfibres and modifiers
Bulk density:	approx. 1.3 kg/dm ³
Mixing ratio:	approx. 4,5 l of water per 25 kg
Temperature of application:	from +5 °C to +25 °C
Pot life:	up to 90 minutes
Adhesion:	to concrete > 0.25 MPa to EPS-boards > 0.08 MPa
Assumed consumption:	approx. 4.0 kg/m ²
This product possesses:	- within the SempreTherm system: 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
e-mail: info@sempretherm.ie**

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.

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