

SOLTHERM SA

Adhesive for EPS

PRODUCT DESCRIPTION:

- good adhesion to mineral surface and EPS
- formulated for the insulation of passive houses and energy efficient buildings and for EPS boards thickness up to 50 cm,
- suitable for EPS, graphite-enhanced EPS and XPS boards
- frost resistant

USE:

SOLTHERM SA is an adhesive formulated to bond polystyrene insulation boards to typical mineral surfaces (such as concrete, masonry walls, cement and lime-cement plasters, etc.) in the ETICS external wall insulations systems.

Not suitable as a base coat.

SUBSTRATE PREPARATION:

The surface must be structurally sound, even, surface contaminants that may affect adhesion such as dust, grease, bitumen and other barrier materials. Remove any friable parts such as peeling or flaking paint or plaster, laitance or debris from the existing wall. Prime absorptive surface (particularly aerated concrete) with the primer SOLTHERM SP. Prime smooth surfaces with SOLTHERM CS. Level larger gaps and irregularities with the mortar SOLTHERM LRC.

Prior to installation of insulation boards to weak, porous substrates or of unknown condition, carry out an adhesion test. To test, attach a few samples of EPS boards (size 50x100x100 mm) to exterior wall in various spots and pull them off by hand after minimum 3 days. The substrate is sufficiently sound if the failure is in the polystyrene. Otherwise, sand, remove friable or crumbling material or prime to prepare the surface and do the adhesion test again.

Prior to insulation of large-panel buildings, it is recommended to assess the fastening of the outer textured layer in the sandwich panel structures.

Preparation of XPS boards prior to installation

Rasp smooth XPS boards on both faces and remove dust. Corrugated boards do not require such preparation.

PRODUCT PREPARATION:

Measure the clean water (4.8 ÷ 5.3 litre) into a suitable vessel/bucket and slowly add the adhesive while mixing using a low-speed drill until a homogeneous consistency is achieved. After 5 minutes and another stirring, the mixture is ready to use. Add the same amount of tap water for each packaging. Do not admix, except for water.

APPLICATION:

Insulation board installation:

- dab and ribbon method

Apply the adhesive to the insulation board in strips and dabs i.e. 30-60mm wide strips around the perimeter of the board with at least three additional dabs of adhesive distributed uniformly over the remaining surface. As soon as the adhesive is applied, place the board on the wall and press firmly with a trowel until it is flush with the previously installed board surface. After pressing to the surface, the well-applied adhesive should cover at least 40% of the surface, and the coat thickness should not exceed 10 mm.

- Notched trowel method

For even and smooth surfaces, Insulation boards can be attached using the tooth bed method (10-12 mm notch size). As soon as the adhesive is applied, place the board on the wall and press firmly with a trowel until it is flush with the previously installed board surface.

Apply insulation boards in a running bond pattern.

LIMITATIONS AND RECOMMENDATIONS:

- Not suitable for areas not damp-proofed against capillary action.
- Before application, protect or mask surfaces such as windows, doors, window sills, etc.
- Allow fresh cement and lime-cement renders to cure for minimum 28 days.
- Plan the surface area to be insulated taking into consideration weather conditions, surface type and workforce.
- Prior to insulation application identify all installations on the building façade or around it to prevent their damaging during mechanical fixing of the insulation (drilling).
- Protect from direct sunlight exposure, precipitation and wind during application operation and drying. Use scaffolding meshes.
- When exposed to sunlight, the graphite-enhanced polystyrene heats up quickly, what may result in deformations of the insulation boards. Therefore, it is recommended to apply the SOLTHERM PTE compound to graphite-enhanced EPS, which will reduce heat absorption by the EPS and in consequence reduce its thermal deformation.
- Avoid extremely thin layer of adhesive as you may experience difficulty with levelling minor irregularities. It may also result in installers exercising too much force on the board surface by excessive bending or striking of the boards to make them flush.
- Low temperature, increased humidity and improper air circulation extend the drying and setting time of the adhesive.
- Clean tools and hands with running water immediately after use. After drying difficulties with cleaning may be experienced. Wipe new splashes off soiled surfaces with damp cloth. Once hardened, the material can only be removed mechanically.

PRECAUTIONS:

Due to alkyd reaction of the product, avoid contact with skin and eyes. In case of eye contact, flush eyes with plenty of water and seek medical advice.

TOOLS:

- Agitator or low-speed mixing drill (400÷500 rpm) with hoop paddle.
- Stainless steel scraper and trowel
- Bucket

TECHNICAL DATA:

The following technical data are for the temperature of +23 (±2)°C and relative air humidity of 50 (±5)%. Under other conditions the technical data may vary.

Ambient and surface temperature at application and setting:

from +5°C to +25°C

Relative humidity at application and setting:

up to 80%

Bulk density:

approx. 1.65 g/cm³ (±10%)

Colour:

grey

Workability:

≤ 1,0 h

Drying and setting time of the adhesive after board installation:

min. 48h

Packaging:

25 kg bag

No. of containers per pallet and net weight:

48 / approx. 1200 kg

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Shelf life:

12 months from the date of production provided on the packaging

NOMINAL COVERAGE:

≥ 4.0 kg/m²

The coverage will vary with the surface levelling and condition as well as the percentage of the insulation board face covering with the adhesive. To determine precise coverage, perform a test patch on the surface.

Usage is typical usage and may vary between installers. Coverage rates quoted for products will not be guaranteed under any circumstances. The rates quoted are based on site experience but may vary due to site conditions, operator skills etc. No claim will be allowed relating to coverage of materials.

STORAGE:

Store in intact containers in temp. between +5°C and +25°C. Protect from damp. Store away from the reach of children.

COMPOSITION:

It is a mixture of hydraulic binders, polymers, fine mineral fillers and modifiers.

BOLIX S.A. guarantees product quality but has no control over its application and use. BOLIX takes no responsibility for contractors' and distributors' performance. The information supplied herein is given in good faith based on our current knowledge and latest application methods. The information provided cannot replace designer's and contractor's expertise and does not dismiss anyone from observing good practice and the OHS regulations. Should you have any further queries, carry out necessary tests or contact SOLTHERM Customer Technical Support. The publication of this Technical Data Sheet renders older editions invalid.