Soltherm UB
Universal Base-coat

USE:
Soltherm UB is designed to install EPS boards to mineral substrates and to apply glass fibre-reinforced coating over EPS. The adhesive is suitable for continuous insulation system for exterior walls (ETICS). It is also used to level irregularities (up to 5 mm) and smooth out mineral substrates prior to paint and thin-coat render application.

SUBSTRATE PREPARATION:
The surface must be sound, even, dry clean of substances which can cause separation (such as dust, grease, oil stains, bitumen) free of cracks as well as biological growth and chemical deposits. Remove any friable parts such as peeling or flaking paint or plaster, laitance or debris from the existing wall. Sand any smooth concrete surfaces with coarse sandpaper, remove dust and prime with SOLTHERM SP. Gaps and imperfections between 5 and 15 mm level with SOLTHERM LRC repair mortar. Prime the porous surface with the primer SOLTHERM SP. Prior to EPS board installation to weak substrates, carry out an adhesion test. To test, attach a few (8-10) samples of EPS boards (size 10x10 cm) to exterior wall in various spots and pull them off by hand after 3 days. The substrate is sufficiently sound if the failure is in the EPS. If the whole sample is detached together with the adhesive and fragment of the substrate, it is necessary to clean the wall of the weak and friable coating. Next, prime the surface with a deep penetrating primer SOLTHERM SP and when it is dry, test the adhesion again. If the second test gives a negative result, consider additional fixing or proper surface preparation.
If applied under optimal ambient and weather conditions (i.e. at +20^{o}C and 60% relative humidity), the drying time of SOLTHERM SP, is min. 4-6h.

PRODUCTION PREPARATION:
Measure the water (4.5 ÷ 5.0 litre) into a suitable vessel/bucket and slowly add the adhesive while mixing using an agitator or a low-speed drill and Jiffy mixer until a homogeneous consistency is achieved. After 5 minutes and another stirring, the mixture is ready to use. Depending on the temperature and humidity, the mortar is workable for 1.5 h. Preparation and application operations as well as drying require ambient and surface temperature from +5°C to +25°C.

PRODUCT APPLICATION:
I) Insulation board installation:
Apply the adhesive on insulation board in strips and dabs– apply 3-6 cm wide strips parallel with the long and short dimensions of the board 3 cm from the edges to avoid coming out of the adhesive. Cover the remaining surface with 8-10 regular dabs of adhesive (8-10 cm in diameter). The adhesive should cover at least 40% of the surface, and the coat thickness should not exceed 10 mm. As soon as the adhesive is applied, place the board on the wall and press firmly with a trowel. Apply insulation boards in a running board pattern. Once the adhesive is set and bonded (min. 48 h) fix the installed boards with mechanical fixings as designed in the technical design. Then, sand the face of the board with coarse abrasive paper.

II) Reinforced base coat application:
Remove dust from sanding and apply glass fibre-reinforced coating over EPS, but not earlier than 48 h after installation. Apply a continuous coating of the prepared base coat to a uniform thickness of approx. 3-4 mm. Work horizontally or vertically in strips matching reinforcing mesh width. Immediately after adhesive application embed fibreglass mesh into the base coat so that it is evenly stretched and fully embedded.. Adjacent mesh strips shall be overlapped not less than 10 cm at mesh seams. In case of any irregularities, apply a second coat of adhesive (approx. 1 mm thick) once the first reinforced coating is dry (in order to smooth and even out its surface). Reinforced base coat thickness should be between 3 – 5mm.

LIMITATIONS:
■Fresh mineral substrates (such as concrete, cement and lime-cement renders) should be allowed to cure for 3-4 weeks until dry, prior to commencing preparation operations and adhesive application.
■If the EPS boards are attached to porous mineral surface, prime it with the primer SOLTHERM SP prior to EPS application.
■Prime only dry surfaces after the setting and curing time, recommended for the substrate, has finished.
■Before application, organise labour (take into consideration number of installers, their skills, equipment, surface condition and weather conditions) to operate most effectively, ensuring that the planned wall area can be completed in one operation.
■Adhesive preparation, application and setting should take place in rainless weather and temperature between +5°C to +25°C.
■Apply the adhesive at surface temperature between +5°C to +25°C.
■Do not apply the base coat in rain and on surfaces with wind and sun exposure
■During the application of thermal insulation, it is recommended to protect the scaffolding with mesh against unfavourable weather conditions.
■If base coat is not applied over the EPS insulation boards within 2 weeks from installation,, assess the polystyrene foam surface.
■If yellowed and floury, sand off surface of polystyrene and remove sanding dust.
■Fresh coatings must be protected against rain and temperature below +5°C and above +25°C until they are set.
Low temperature, increased humidity and improper air circulation extend the drying time.
■Expansion joints should be extended through to the surface of the ETICS system with full system expansion beads.
■Clean tools and hands with running water immediately after use. After drying, difficulties with cleaning may be experienced. Wipe new adhesive splashes off soiled surfaces with damp cloth.
■SOLTHERM UB universal adhesive is a component of the SOLTHERM P thermal insulation systems. Its full and guaranteed performance is obtained when used with other components from the system compliant with the application method described in the ETICS Instruction Manual no. IB/01/2001.

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:
■Bucket,
■Agitator or low-speed drill (400÷500 rpm) with jiffy mixer,
■Stainless steel scraper and trowel
■Stainless steel float
■Stainless steel trowel
■Hammer drill
■Brick hammer
■ Hand sander (coarse sanding paper)

TECHNICAL PARAMETERS:
Application properties of the adhesive:
■Application temperature: from +5°C to +25°C
■Surface temperature: from +5°C to +25°C
■Mixing ratio: 4.5÷-5.0l of water per 25 kg of mortar
■Open time : approx. 1.5 h
■Slump: < 0,12 mm

Technical parameters and product properties:
■Consistency: dry powder
■Colour: grey
■Bulk gravity: approx. 1.60 kg/dm3
/all technical data provided for the temperature of +20oC and 60% relative humidity/

COVERAGE:
■Estimated coverage for exterior wall insulation:
■to attach insulation boards to properly prepared substrate approx. 4.0 kg/m2
■to apply fibre reinforced base coat approx. 4,0 kg/m2.

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.

PACKING, STORAGE AND TRANSPORTATION:
Protect intact original containers from damp during transportation and storage. Shelf life up to 12 months from the date of production provided on the packaging. Store away from the reach of children.

COMPOSITION:
The Adhesive SOLTHERM UB is a dry mixture of hydraulic binders, polymers, fine mineral fillers and modifiers.