

TECHNICAL SHEET 11.01.13 - ENG

CONSTRUCTION ADHESIVES



JUBIZOL ULTRALIGHT FIX

Adhesive and base coat in the JUBIZOL External Thermal Insulation Composite Systems (ETICS)

1. Description, Application

Within JUBIZOL PREMIUM and JUBIZOL NATURE ETICS, JUBIZOL ULTRALIGHT FIX is used as an **adhesive for insulation lining (boards made of expanded polystyrene, hard boards and lamellas made of mineral wool) and as an base coat on the insulation lining**. It is based on cement, polymeric binders and expanded polystyrene beads. **In addition to having good strength characteristics, the dried product is also exceptionally elastic, highly water vapour permeable and adheres well to insulation boards as well as to all types of wall surfaces** (non-plastered brick and concrete walls, unplastered walls made of aerated concrete, all types of plastered walls and fibre cement boards).

2. Packaging

Paper bags containing 20 kilos

3. Technical Data

Density (ready-to-use mortar compound) (kg/dm ³)		~1.36
Open time (ready-to-use adhesive compound) (hours)		2 to 3
Coat thickness (mm)		Up to 8mm in two applications
Dry to recoat after fixing of insulation lining T = +20 °C, relative air humidity = 65 % (hours)	For further treatment (flattening, anchoring of Insulation lining)	48
Dry to recoat of the base coat T = +20 °C, relative air humidity = 65 % (hours)	Rainproof achieved after	~24
	For further treatment (application of the render finish)	At least 24 for each mm of thickness
Water-vapour permeability EN ISO 7783-2	μ coefficient (-)	<40
	S _d value (d=5mm) (m)	<0.2
Water absorption EN 1015-18 [kg / m ² . min 0.5]		~0.03
Adhesion to concrete (after 28 days) (MPa)	In dry	>0.25
	After being soaked in water (2 hours)	>0.08
	After being soaked in water (7 days)	>0.25



Adhesion to expanded polystyrene and lamellas made of mineral wool (after 28 days) (MPa)	In dry	>0.08
	After being soaked in water (2 hours)	>0.03
	After being soaked in water (7 days)	>0.08
Adhesion to boards made of mineral wool (after 28 days) (MPa)	In dry	<0.08 (fracture in mineral wool)
	After being soaked in water (2 hours)	<0.03 (fracture in mineral wool)
	After being soaked in water (7 days)	<0.08 (fracture in mineral wool)

Main ingredients: cement, polymeric binder, EPS granules, silicate fillers, perlite, cellulose thickening agent

4. Preparation of Surface for Fixing of Insulation Boards

Using JUBIZOL ULTRA LIGHT FIX, insulation boards made of expanded polystyrene and also solid boards and lamellas made of mineral wool can be fixed onto any surface which is solid enough, dry and clean. The surface should be level – when checking the levelness with a 3-metre long lath, a slit between the control lath and the wall surface should not exceed 10 mm. Level larger uneven parts by plastering and not by a thicker application of the adhesive.

Do not apply any primers on clean brick wall surfaces before fixing the insulation lining. However, as far as other types of construction surfaces are concerned, such coats are obligatory. Use water-diluted AKRIL EMULSION (AKRIL EMULSION : water = 1 : 1) for suitably rough and normally absorbent surfaces. Apply the primer with a suitable brush, a long-bristle painting roller or spray it. Fixing of insulation lining may begin approximately 2 to 3 hours after the application of a primer.

Plastered façade walls make a suitable surface for fixing of insulation lining only if render finishes are well-adhered to the wall surface. Otherwise, remove them completely or process them appropriately and mend them. In normal conditions (T = +20°C, relative air humidity = 65 %), let the newly applied render finishes dry or mature for at least 1 day for each mm of their thickness. It is obligatory to disinfect and clean surfaces infected with wall mould or algae prior to fixing. Clean concrete surfaces with hot water or steam. Prior to fixing, remove all badly-adhered and non-adhered decorative coats and slurries from the surface.

Approximate consumption of the primer for fairly absorbent finely rough plastered wall surfaces:
AKRIL EMULSION 90 – 100 g/m²

5. Preparation of Insulation Lining Surface for Application of Base Coat

Sand (sandpaper no. 16) any uneven parts of the insulation lining two days after the fixing of insulation boards made of expanded polystyrene. If necessary, additionally anchor the lining with two-part plastic nail-in anchors prior to applying the lower coat of the base coat.

It is not necessary to specially prepare insulation linings made of mineral wool (solid boards made of mineral wool, lamellas made of mineral wool).

6. Preparation of Adhesive Mortar for Application

Prepare the mortar compound by pouring the content of a bag (20 kilos) into approximately 4.6 liters of water during constant stirring. Stir the compound in a suitable container with an electric mixer or in a mixer used for the preparation of mortars and concrete. After 10 minutes, when the compound has swollen up, stir it again, and, if necessary, add a little water. Open time of the prepared compound is 2 to 3 hours.

7. Fixing of Insulation Boards

FIXING OF BOARDS MADE OF EXPANDED POLYSTYRENE AND SOLID BOARDS MADE OF MINERAL WOOL:



apply adhesive mortar on one side – the back side of boards – with a stainless painting trowel in continuous bands at the edge of boards and additionally on 4 to 6 spots or in two stripes in the middle (in the case of fixing of insulation lining onto ideally level surfaces, mortar may be applied with a notched stainless steel smoothing trowel – width and dept of notches 8 to 10 mm – evenly across the entire surface of boards). The quantity of the applied adhesive should be such so as to spread across at least 40 % of the surface of boards when they are pressed onto the surface.

Fix boards closely together so that the adhesive does not dribble into joints. Throughout fixing, check straightness of the outer surface of the lining with a suitably long lath. Indent boards in adjacent rows in accordance with brick connection rules with the indent of vertical joints being at least 15 cm. Comply with brick connection rules also as far as corners are concerned, where boards of one wall surface should stretch over the outer surface of the lining of the neighbouring wall surface for at least a few centimeters and perform the so called crossing in the corner. Cut off the excess part of boards in corners in a straight line, but only 2 to 3 days after fixing.

Additionally strengthen boards made of mineral wool into the wall surface already in the fixing phase using four two-, three- or multi-part plastic nail-in anchors. Perform potentially necessary additional anchoring of the insulation lining made of expanded or extruded polystyrene 2 to 3 days after fixing (when the adhesive has completely hardened).

FIXING OF LAMELLAS MADE OF MINERAL WOOL:

apply adhesive mortar on one side – onto the back of a lamella – with a notched stainless steel smoothing trowel (width and depth of notches 8 to 10 mm) evenly across the entire surface. In the case of lamellas with factory applied slurry, the adhesive compound can be applied onto the wall surface instead on the lamella in the same manner. In this case and especially on larger wall surfaces, spraying, where the adhesive compound is applied spirally onto the wall surface, has also proven to be economical. Irrespective of the manner of adhesive application, fix lamellas closely together so that the adhesive does not dribble into joints. Throughout fixing, check straightness of the outer surface of the lining with a suitably long lath. Indent lamellas in adjacent rows in accordance with the brick connection rules with the indent of vertical joints being at least 15 cm. Comply with brick connection rules also as far as corners are concerned, where lamellas should stretch over the outer surface of the lining of the neighbouring wall surface for at least a few centimeters and perform the so called crossing in the corner. Cut off the excess part of lamellas in corners in a straight line, but no sooner than 2 to 3 days after fixing.

Perform the works only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5°C and +35°C and the relative air humidity should not exceed 80 %. Protect façade surfaces from sun, wind and rainfall using protective scaffold nettings; however, do not conduct any work in rain, fog or strong wind (≥ 30 km/h) despite such protection.

Approximate or average consumption:

JUBIZOL ULTRA LIGHT FIX 3 to 4 kg/m², depending on the surface quality

8. Application of Adhesive Mortar into ETICS Base Coat

Apply mortar compound onto the insulation lining manually or mechanically in two and only in specific cases in three coats (parts of buildings built into the ground if insulation lining is made of expanded polystyrene and in cases of façade surfaces of buildings bordering playgrounds and similar which are “extremely exposed to damages”). Thickness of the lower coat of the lining made of expanded polystyrene is ~3-4 mm, and that on the lining made of mineral wool ~4 to 6 mm. Immediately after the application of JUBIZOL ULTRA LIGHT FIX, imprint JUBIZOL vinyl-covered glass fibre mesh into it. After the surface has dried for a day for each millimetre of its thickness, apply the upper coat of the base coat in thickness of ~1.5-2 mm. Then level and smooth the facade surface as much as possible. Façade final treatment may begin 1 to 2 days after levelling and smoothing.

Perform the works only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5°C and +35°C and the relative air humidity should not exceed 80 %. Protect façade surfaces from sun, wind and rainfall using protective scaffold nettings; however, do not conduct any work in rain, fog or strong wind (≥ 30 km/h) despite such protection.

Approximate or average consumption:

JUBIZOL ULTRA LIGHT FIX ~1.22 kg/m² for each millimetre of thickness (depending on the type of insulation lining and the manner of the facade final treatment)



9. Tool Cleaning, Waste Management

Thoroughly clean the tools with water immediately after use. Dried stains cannot be removed.

Keep unused dry compound for potential later use. Mix unusable remains with water and when they harden, deposit them onto the dumping grounds of construction waste (waste classification number: 17 09 04).

Cleaned packaging can be recycled.


10. Safety at Work

In addition to general instructions and regulations for construction or plastering and painting works, please consider that the product contains cement and is therefore classified among dangerous preparations labelled as Xi IRRITANT. The content of chromium (Cr 6⁺) is lower than 2 ppm.

Protection of the respiratory system: the use of a safety mask under very dusty conditions. Protection of hands and body: work clothing, preventive protection with a protection cream and the use of protective gloves are recommended in the case of prolonged exposure of hands. Protection of eyes: protective glasses or a safety mask during spraying.

FIRST AID:

Contact with skin: remove clothing which has been wetted, and rinse the skin with water and soap. Contact with eyes: immediately widen the eyelids, rinse thoroughly with clean water (10 to 15 minutes), seek medical advice if necessary. Ingestion: drink little water several times, seek medical advice immediately.

Warning signs on the packaging	<p>Xi</p>  <p>IRRITANT!</p> <p>THE PRODUCT CONTAINS CEMENT!</p>
Special measures, warnings and observations for safe work	<p>R 36/38 Irritating to eyes and skin.</p> <p>R 41 Risk of serious damage to eyes.</p> <p>S 2 Keep out of reach of children.</p> <p>S 24/25 Avoid contact with skin and eyes.</p> <p>S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p>S 28 After contact with skin, wash immediately with plenty of water.</p> <p>S 37/39 Wear suitable gloves and eye protection.</p> <p>S 46 If swallowed, seek medical advice immediately and show this container or label.</p>

11. Storage, Transport Conditions and Durability

Protect the product against moistening during transport. Store in dry and airy places, and out of reach of children!


Shelf life when stored in an originally sealed and undamaged packaging: at least 12 months.



12. Quality Control

The product's quality characteristics are determined by the internal manufacturing specifications as well as by the Slovene, European and other standards. JUB is ensured the achieving of the declared or set quality level by the ISO 9001 system for total quality management and control, which has been implemented at JUB for many years and which comprises daily quality checks in our own laboratories, occasionally at the ZAG Construction Institute in Ljubljana and other independent expert institutions in Slovenia and abroad. During the manufacturing process, JUB strictly complies with the Slovene and European standards for the protection of the environment and for ensuring security and health at work, which has been confirmed by the ISO 14001 and OHSAS 18001 certificates.

Adequacy of JUBIZOL ULTRA LIGHT FIX for fixing of the insulation linings and for the manufacture of base coats in JUB's ETICS has been approved by the European Technical Approval (ETA). In accordance with the ETAG 004 guidelines, the testing was performed at the ZAG Construction Institute in Ljubljana.

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JUB d.o.o. Dol pri Ljubljani 28 1262 Dol pri Ljubljani SLOVENIJA 13 JUBIZOL EPS / MW 1404-CPD-1606 1404-CPD-1619
ETA 09/0393 ETA 10/0334 ETAG 004

13. Other Information

Technical instructions contained in this brochure are provided on the basis of JUB's experience and are given as a guideline to achieve the optimum results. JUB cannot accept any responsibility for damage caused by incorrect selection of a product, incorrect use or unprofessional work.

This technical sheet supplements and replaces all preceding editions. JUB reserves the right to change and supplement data in the future.

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The product is made by the holder of ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certificates.

