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JUB Group

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TECHNICAL SHEET 11.01.08-GBR
CONSTRUCTION ADHESIVES

EPS ADHESIVE MORTAR

Adhesive and base coat in JUBIZOL External Wall Insulation (EWI) systems on EPS

1. Description, Application

EPS ADHESIVE MORTAR is used as a base coat and an adhesive for insulation coating (boards made of expanded polystyrene) in the JUBIZOL EPS External Wall Insulation (EWI) system and only as a base coat in the JUBIZOL S70 EWI system (where insulation boards are fixed with the JUBIZOL ADHESIVE). The mortar is based on cement and polymeric binders. It is distinguished by good strength characteristics and good adhesion to insulation boards and all types of mineral wall surfaces (unplastered brick and concrete walls, unplastered walls made of porous concrete, all types of plastered walls and similar).

2. Packaging

Paper bags containing 20 kilos

3. Technical Data

Density (ready-to-use mortar compound) (kg/dm^3)		~1.60
Open time (ready-to-use mortar compound) (hours)		2 to 3
Coat thickness (mm)		<2 (for an individual coat) <3 (for a two-coat application)
Drying time of the adhesive after fixing of insulation coating T = +20 °C, relative air humidity = 65 % (hours)	For further treatment (polishing, anchoring of the insulation coating)	24 to 48
Drying time of the base coat T = +20 °C, relative air humidity = 65 % (hours)	Resistance of the surface to being washed out by drainage water is achieved	~24
	For further treatment (application of the final render finish)	At least 24 for each mm of its thickness
Water-vapour permeability EN ISO 7783-2	ε coefficient (-)	<50
	S_d value (t = 3 mm) (m)	<0.14 Class I (high water-vapour permeability)
Water absorption w24 EN 1062-3 ($kg/m^2h^{0,5}$)		<0.10 Class III (low water absorption)
Adhesion to concrete (after 28 days) (MPa)	In dry	>0.25
	After soaking in water (2 hours)	>0.08

	After soaking in water (7 days)	>0.25
Adhesion to expanded polystyrene (after 28 days) (MPa)	In dry	>0.08
	After soaking in water (2 hours)	>0.03
	After soaking in water (7 days)	>0.08

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

4. Preparation of Surface for Fixing of Insulation Boards

Insulation boards made of expanded polystyrene can be fixed with the EPS ADHESIVE MORTAR onto any surface, which is solid enough, dry and clean. The surface should be level ï when checking the levelness with a 3-metre long moulding, the cleft between the control moulding 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 prior to fixing of insulation coating on clean brick wall surfaces. However, as far as other types of construction surfaces are concerned, such coats are obligatory. In case of suitably rough and normally absorbent surfaces use water-diluted AKRIL EMULSION (AKRIL EMULSION : water = 1 : 1). Apply the primer with a suitable brush, a long-fibre paint roller or spray it. Fixing of insulation coating may begin approximately 2 to 3 hours after the application of a primer.

Plastered façade walls make a suitable substrate for fixing of insulation coating only if render finishes are well-adhered. Otherwise, remove them completely or process them appropriately and mend them. In normal conditions (T = +20 ºC, relative air humidity = 65 %), let the newly applied renders 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 primer for finely coarse rendered wall surfaces of medium absorption:
AKRIL EMULSION 90 ï 100 g/m^2

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

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

6. Preparation of Adhesive Mortar for Application

Prepare the mortar compound by pouring the content of a bag (20 kilos), during constant stirring, into approximately 4 liters of water. 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 again, and, if necessary, add a little water. Open time of the prepared compound is 2 to 3 hours.

7. Fixing of Insulation Boards

Apply adhesive mortar on one side ï the back side of boards ï with a stainless paint trowel in continuous bands at the edge of boards and additionally at 4 to 6 spots or in two stripes in the middle (in the case of fixing of insulation coating onto ideally level surfaces, the mortar may be applied with a notched stainless steel smoothing trowel ï width and dept of notches 8 to 10 mm ï evenly across the entire surface of boards). Quantity of the applied adhesive should be such as to be 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 contact joints. Throughout fixing, check straightness of the outer surface of the covering with a suitably long moulding. Indent boards in adjacent rows under brick connection rules, 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 covering of the neighbouring wall surface for at least a few centimeters and perform the so called cross bond in the corner.

Perform the works only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5ºC and +35ºC and the relative air humidity should be below 80 %. Protect facade surfaces from sun, wind and rainfall using protective scaffold nettings; however, do not conduct any work in rain, fog or strong wind

(Ć30 km/h) despite such protection.

Potentially required additional anchoring of insulation boards is conducted 2 to 3 days after fixing (when the adhesive completely hardens).

Approximate or average consumption:	
EPS ADHESIVE MORTAR	3.5 to 5 kg/m^2, depending on surface quality

8. Application of Adhesive Mortar into Base Coat of EWI Systems

Apply the mortar compound onto the insulation coating manually or mechanically in two, only in specific cases (parts of buildings built into the ground and in cases of façade surfaces, which are ñextremely exposed to damages,òof buildings bordering playgrounds), in three coats. Thickness of the lower coat on the coating made of expanded polystyrene is ~2 mm. Immediately after the application of the EPS ADHESIVE MORTAR, imprint JUBIZOL vinyl-covered glass fibre mesh into it. After the surface has dried for 2 to 3 days, apply the upper coat of the base coat in thickness of ~1 mm. Then level and smooth the facade surface to the maximum possible degree. The final processing of façade may begin when the base coat is dried through, i.e. 1 to 2 days after the application of the upper coat.

Perform the works only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5ºC and +35ºC and the relative air humidity should be below 80 %. Protect facade surfaces from sun, wind and rainfall using protective scaffold nettings; however, do not conduct any work in rain, fog or strong wind (Ć30 km/h) despite such protection.

Approximate or average consumption:	
EPS ADHESIVE MORTAR	~4.5 kg/m^2

9. Tool Cleaning, Waste Management

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

Keep the unused dry compound for potential later use. Useless remains should be mixed with water and when hardened deposited onto the dumping grounds of construction waste (waste classification number: 17 09 04).

Cleaned packaging can be recycled.

10. Safety at Work

Apart from general instructions and regulations for construction or façade 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 in case a lot of dust is raised. 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 when applied by 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 a little water several times, seek medical advice immediately.

Warning signs on the packaging	Xi  IRRITANT! THE PRODUCT CONTAINS CEMENT!
Special measures, warnings and observations for safe work	R36/38 Irritating to eyes and skin. R41 Risk of serious damage to eyes. S2 Keep out of the reach of children. S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 After contact with skin, wash immediately with plenty of water. S37/39 Wear suitable gloves and eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label.

11. Storage, Transportation Conditions and Durability

During transportation, protect the product against moistening. Store in dry and airy places, out of the reach of children!

Shelf life when stored in an originally sealed and undamaged packaging: at least 6 months.

12. Quality Control

The productôs quality characteristics are determined by the internal manufacturing specifications as well as by the Slovenian, European and other standards. JUB ensures 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 its own laboratories, and occasionally at the Construction Institute in Ljubljana and at other independent expert institutions in Slovenia and abroad. During the manufacturing process, JUB strictly complies with the Slovenian and European standards for protection of the environment and for ensuring security and health at work, which is confirmed by the ISO 14001 and OHSAS 18001 certificates.

The adequacy of the EPS ADHESIVE MORTAR for fixing of the insulation coating made of expanded polystyrene and for the manufacture of base coats in the JUBôs EWI systems has been approved by the European Technical Approval (ETA). In accordance with the ETAG 004/2000 guidelines, the testing was performed at the ZAG Construction Institute in Ljubljana.

JUBIZOL EPS/S70
CE 1404
JUB d.o.o. 1262 Dol pri Ljubljani 28 SLOVENIJA 08 1404-CPD-1074 1404-CPD-1332
ETA 06/0239 ETA 08/0236 ETAG 004

13. Other Information

The technical instructions in this brochure are given based on JUB's experience and are given as a guideline for achieving optimum results. JUB cannot accept any responsibility for the 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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