

TECHNICAL SHEET 06.03.03-EN



JUBIZOL Strong fix

Additionally micro-reinforced adhesive mortar

1. Description, Application

The product is used in thermal insulation systems that are exposed to larger strains to achieve greater resistance against damage due to hail (the JUBIZOL STRONG system), greater resistance to impact and perforation, etc. JUBIZOL Strong fix is used as an adhesive for the insulation covering - boards made of expanded polystyrene (fixing boards made of extruded polystyrene and boards and lamellas made of mineral wool are also possible), and as a base coat on the insulation covering. It is made of and based on cement and polymer binders, and is micro reinforced which, besides good strength characteristics, also ensures exceptional elasticity, high vapour permeability, and good adhesion to insulation boards as well as all types of masonry substrates (uncoated brick and concrete walls, uncoated walls from porous concrete, all types of coated walls, fibre-cement boards).

2. Technical data

Packaging		25kg
Density (application-ready mortar mixture)		~1.6 kg/dm ³
Open time (ready-to-use mortar compound)		2-3 h
Total layer thickness for base plaster on EPS and XPS insulation boards		~6 mm
Total layer thickness for base plaster on MW insulation boards		~9-10 mm
Water dilution mass		~22 %
Drying time of adhesive mortar after fixing of insulation boards T = +20 °C, relative air humidity = 65 %	For further treatment (flattening, anchoring of Insulation lining)	24-48 h
Drying time of the base coat T = +20 °C, relative air humidity = 65 %	To achieve resistance against leaching with rainwater	~24 h
	For further treatment (application of the render finish)	~24 h (for each mm of thickness)

Minimum consumption for fixing the insulation boards		~3.5 kg/m ²
Maximum consumption for fixing the insulation boards		~5 kg/m ²
Average consumption of basic plaster on EPS		4.5 kg/m ²
Average consumption of basic plaster on MW		7 kg/m ²
Vapor permeability EN ISO 7783-2	coefficient μ	~50
	value Sd (d = 100 μ m)	~0.15 m
Thermal conductivity I EN 1745		- W/mK
Water absorption w ₂₄ EN 1015-18		<0.1 kg/m ² *h ^{0,5} class W2
Adhesion to concrete (after 28 days)	In dry	>0.25 MPa
	After being soaked in water (2 hours)	>0.08 MPa
	After being soaked in water (7 days)	>0.25 MPa
Adhesion to expanded and extruded polystyrene and on lamellas made of mineral wool (after 28 days)	In dry	>0.08 MPa
	After being soaked in water (2 hours)	>0.03 MPa
	After being soaked in water (7 days)	>0.08 MPa
Adhesion to boards made of mineral wool (after 28 days)	In dry	-- MPa (fracture in mineral wool)
	After being soaked in water (2 hours)	-- MPa (fracture in mineral wool)
	After being soaked in water (7 days)	-- MPa (fracture in mineral wool)

3. Installation Conditions

The temperature of the air and the wall base should be from +5 °C to +30 °C, and the relative air humidity should not be higher than 80%. Protect façade surfaces against the sun, wind and rainfall with curtains; however, do not conduct any work in rain, fog or strong wind (≥ 30 km/h) despite such protection.

4. Preparation of Surface for Fixing of Insulation Boards

With JUBIZOL Strong fix insulation boards made of expanded or extruded polystyrene, as well as solid boards and lamellas made of mineral wool, can be fixed to any base that is suitably hard, dry, and clean. The base should be level – when checking the surface with a 3m lath, the gap between the lath and the wall surface must not exceed 10mm. Larger, uneven surfaces should be levelled by coating and not by applying a thicker level of the adhesive. No basic coats should be used before fixing the insulation covering onto a clean brick wall surface, but all other types of construction bases do require such coats. A water-diluted ACRYL Emulsion should be used for suitably coarse and normally absorbent bases. The base coat is applied with a suitable brush, with a long nap paint roller, or by spraying. Fixing the insulation covering can start approximately 2 to 3 hours after applying the base coat.

The coated facade walls are a suitable base for fixing the insulation covering only if the coat tightly adheres to the wall surface, otherwise they should be removed completely or suitably repaired and patched. Under normal conditions (T = +20° C, rel. air humidity = 65%), new applied coats are dried or matured for at least 1 day for each mm of thickness. Surfaces infected with wall mould or algae must be disinfected and cleaned before fixing. Concrete bases should be cleaned with hot water or steam. Before fixing, all poorly adhering and non-adhering decorative coats and spraying should also be removed.

For technical information on these primers, please read the technical data sheet.

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

Two days after fixing the insulation boards made of expanded or extruded polystyrene; any uneven insulation

covering should be sanded (sand paper, no. 16). If required, the covering should be additionally anchored with two, two-part plastic nail-in anchors before applying the lower layer of the base coat.

No special preparation of insulation covering made of mineral wool (solid boards made of mineral wool, lamellas made of mineral wool) is required.

6. Preparing the Adhesive Mortar for Application

The mortar mixture is prepared by pouring the contents of the bag (25kg) during continuous mixing into approximately 5.5l of water. Mix in a suitable container with a handheld electric mixer, or in a mixer for preparing mortar and concrete. After 10 minutes, when the mixture swells, remix it and if required add some water. The open time of the ready-to-use mixture is 2-3 hours.

7. Fixing the Insulation Boards

FIXING BOARDS MADE OF EXPANDED OR EXTRUDED POLYSTYRENE, AND SOLID BOARDS MADE OF MINERAL WOOL:

The adhesive material is applied on one side – the back side of the boards – with a stainless painting trowel or a coating trowel in continuous bands at the edge of the boards. Also, additionally apply the adhesive on 4 to 6 spots or in two stripes in the middle of the board (when fixing of insulation onto ideally level surfaces, the compound may be also applied a notched stainless steel smoothing trowel – width and depth of notches 8 to 10 mm – evenly across the entire surface of the boards). The quantity of the applied adhesive should be such that it spreads to at least 40% of the board's surface when the boards are pressed onto the wall surface.

The boards should be fixed closely together, so that the adhesive does not seep into the joints. Throughout the fixing process, the level condition of the outer surface of the covering is checked with a suitably long lath. Boards on adjacent rows are indented in accordance with brick connection rules, whereby the indent of vertical joints should be at least 15cm. Brick connection rules should also be taken into account 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 by at least a few centimetres and the 'cross bond' should be implemented in the corner. The excess part of boards should be cut off at the corners in a straight line, but only 2 to 3 days after fixing the boards.

Boards made of mineral wool should be additionally strengthened during the stage of fixing them into the wall surface with four, two-, three-, or multi-part, plastic nail-in anchors. Any additional anchoring of the insulation covering made of expanded or extruded polystyrene should be performed 2 to 3 days after fixing (when the adhesive hardens completely).

FIXING LAMELLAS MADE OF MINERAL WOOL:

The adhesive material is applied on one side – the back side of the lamella – with a stainless steel smoothing trowel (width and depth of notches 8 to 10mm) evenly across the entire surface of the lamella. If the lamellas have a factory applied spraying, the adhesive material can be applied to the wall surface instead of on the lamella in the same manner. In this case, and especially on larger wall surfaces, machine application (by spraying) of the adhesive compound onto the wall surface in the shape of "spiral sausages" has also proven to be economical. Regardless of the adhesive application method, the lamellas should be fixed closely together so that the adhesive does not seep into the joints. Throughout the fixing process, the level condition of the outer surface of the covering is checked with a suitably long lath. Lamellas on adjacent rows are indented in accordance with brick connection rules, whereby the indent of vertical joints should be at least 15cm. Brick connection rules should also be taken into account as far as corners are concerned, where lamellas stretch over the outer surface of the covering of the neighbouring wall surface by at least a few centimetres and the 'cross bond' should be implemented in the corner. The excess part of lamellas should be cut off at the corners in a straight line, but only 2 to 3 days after fixing.

Indicative or average consumption:

JUBIZOL Strong fix ~3.5 to 5 kg/m², depending on the quality of the surface

8. Application of Adhesive Mortar into the Thermal Insulation System Base Coat

Mortar compound is applied onto the insulation covering manually, or by a machine in three layers. The thickness of the lower and middle layer on the covering made of expanded polystyrene should be 2.5mm and 1mm for the top layer (the total thickness of the base coat is thus 6mm). JUBIZOL vinyl-covered glass fibre mesh (160 g)

should be pressed into the first and second layer immediately after application; and each subsequent layer of the adhesive mortar should only be applied after the previous layer has hardened (after 2 or 3 days under normal conditions) and should be "levelled" as much as possible.

After drying for at least 1 day for each mm of thickness, the upper layer of the base coat should be applied with a thickness of ~1 mm, and the facade surface should be levelled and smoothed as much as possible. The final treatment of the facade may begin after 1 to 2 days.

Approximate or average consumption:

JUBIZOL Strong fix ~4.5 - 7 kg/m² (depending on the type of insulation covering and the method of final treatment of the facade)

The tools should be washed with water immediately after use; dried stains cannot be removed later.

9. 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 12 months.

10. Other Information

Technical instructions in this brochure are given based on our experiences and are given as a guideline for achieving optimal results. We cannot take any responsibility for the damage, caused by incorrect selection of a product, incorrect use or unprofessional work.

Safety measures: Follow the instructions on the safety data sheet of the product.

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

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