

Product type: Adhesive mortar for fixing polystyrene or basalt mineral wool plates on a base layer made from OSB 3-type plates.

Short description of product: POLI-FIX OSB 3 is a mortar based on quartz sand, selected inert materials, Portland cement and specific additives

Areas of application: POLI-FIX OSB 3 is created for fitting (by sticking) stress relieved polystyrene plates with a density exceeding 15 kg/m^3 or basalt mineral wool plates of rigid type with a density of at least 85 kg/m^3 or having the fiber perpendicular on the surface to be insulated or rigid plates especially made for covering, with a minimum density of 140 kg/m^3 and having the fiber parallel to the surface to be insulated, on walls made from OSB 3-type plates.

Technical data:	Type	flexible
	Adherence to the base layer	min. 1.1 N/mm ²
	Adherence to the base layer after frosting/defrosting	min. 1.3 N/mm ²
	Adherence to the base layer after immersion in water	min. 1.1 N/mm ²
	Adherence to the base layer after ageing	min. 0.9 N/mm ²
	Humidity capacity at 30 minutes	80 %
	Adherence of OSB 3 system-adhesive-expanded polystyrene	0.1 N/mm ² – breakage through polystyrene
	Adherence of OSB 3 system-adhesive-basalt mineral wool	0.03 N/mm ² – breakage through mineral wool
	Open time to 5 minutes	1.6 N/mm ²
	Open time to 10 minutes	1.4 N/mm ²
	Open time to 20 minutes	1.2 N/mm ²
	Pot life	approx. 90 minutes
	Sliding	maximum 0.1 mm
	Average consumption at plate sticking on OSB 3 support	2.5 Kg/m ²
	Average consumption upon scraping	3.0 Kg/m ²
	Minimum filling thickness	2 mm/layer
	Maximum filling thickness	4 mm/layer
	Preparation	Only with cold water
	Mixture water	6.3 l / 25 kg
	Temperature range for usage	+ 5°C – + 35°C

Instructions for use: Application of product is carried out only by trained and skilled workers in mortar applications, in the following stages:

1. Related necessary materials:

The product is used together with the following:

- Stress relieved expanded polystyrene plates for facades or stress relieved extruded polystyrene for facades having a minimum density of 15 Kg/m^3
- Rigid basalt mineral wool plates with a minimum density of 85 Kg/m^3 and having the fiber perpendicular on the surface to be insulated or rigid plates especially made for covering, with a minimum density of

140 Kg/m³ and having the fiber parallel to the surface to be insulated;

- Glass fiber net with a specific weight of approx. 165 g/m²;
- Special studs for additional mechanical fixing;
- U-shaped metal fixtures for the base, protection metal fixtures for corners and other protection and finishing fixtures.

2. Checking the base surface:

Checking the base layer is an important stage in the process of applying the product.

The surfaces on which the insulating plates are fixed with POLI-FIX OSB 3 must have the following characteristics:

- a. They are clean, dust and salt free, they do not contain any non-adhesive substances (grease, bitumen, dust, gypsum, dye, old wall painting etc.)
- b. They are dry so that no other size changes occur after applying an adhesive.

If the base layer for which the product is used does not comply with the 3 minimum requirements mentioned above, it is considered to be unfit for carrying out the thermal insulation with this product.

3. Preparation:

The product is prepared by mechanically mixing a 25 kg powder sack with 6.3 l (250 ml/kg) of clean and cold water, only in clean and appropriate containers, until a homogeneous paste is obtained. The mixing is carried out for 2 minutes with a specialized rotating mechanical device (electrical or pneumatic), with low revolutions (maximum: 500 rev/min) and high power (minimum: 1,200 W), fitted with a mixing rod specially designed for mortars. The powder is poured into the water (and not the other way around) and they are mixed until a homogeneous agglomeration free paste. The resulted paste is left to rest for about 10 minutes and then it is mixed again and afterwards it can be used.

The paste obtained through the above mentioned procedure can be used up to 90 minutes after being mixed.

4. Product application:

None of the operations described below shall be performed under direct sunlight, under powerful air currents (wind) or at air or base layer temperatures lower than 5°C or exceeding 35°C.

a. Fitting the polystyrene plates and the basalt mineral wool plates:

The polystyrene plates, the basalt mineral wool plates, respectively, are horizontally fitted, in an interlaced manner, thus avoiding the overlapping of two joints on the vertical plane.

The fitting is carried out from bottom to top and starts by placing at the base a metal profile support which sustains the first row.

For fitting the polystyrene plates, the mortar prepared according to point 3 is applied on the plates, that are fitted, in 5-8 small round spots depending on the size of the plate, on the corners and in the middle and around; afterwards, the plates are pressed on the base layer.

The size of the product applied in the 5-8 spots is thus determined so that the coverage of the adhesive on the plate and base layer is of at least 50%, maximum 60%, and the resulted thickness is of maximum 4 mm, after the plates have been pressed into place. Consequently, the grooves formed on the inner side of the fitted plate allow the subsequent circulation of the diffusion vapours.

The size of the product applied in the 5-8 spots is thus determined so that the coverage of the adhesive on the plate and base layer is of at least 60%, and the resulted thickness is of maximum 4 mm, after the plates have been pressed into place. After the adhesive has hardened, the applied plates are also fixed

into place mechanically with the help of the special studs.

In order to increase mechanical resistance, plastic securing studs are used, having the appropriate length depending on the size of the insulating plate.

The number of securing studs is of 3 - 5 pieces/m²; they are applied preferably in the common jointing place of three different plates.

b. Filling:

Filling the plates fitted according to point 4a is done as follows:

- POLI-FIX mortar is applied on the polystyrene plates fitted according to point 4a on an OSB 3-type base layer.
- POLI-FIX VB 100 mortar is applied on the basalt mineral wool plates fitted according to point 4a on an OSB 3-type base layer.

In both cases above the mortar prepared according to point 3 is applied on the plates fitted according to 4a, by being reinforced with a glass fiber net.

Filling is carried out between 24 hours (minimum) and 15 days (maximum) after the insulating plates have been fitted.

For insulating with polystyrene plates: if the interval between the fitting of the plates and their filling is more than 15 days long, and the plates have been exposed to UV radiation, their surface will be finished and cleaned of dust before filling.

For filling, POLI-FIX and POLI-FIX VB 100 products are prepared identically to point 3 (see the POLI-FIX and POLI-FIX VB 100 data sheets).

The prepared product is gradually applied on the surface made up of the insulating plates fitted, with an indented grouter (indented spatula) - tooth size: 8-10 mm.

While the mortar is spread out, the glass fiber net is applied on top of it, from bottom to top, by pressing it inside the freshly applied mortar with the hand and with the smooth part of a jointer.

The net will be overlapping at least 10 cm at the joints between the straps. After inserting the net, the filling mixture shall be rapidly finished with the smooth part of the jointer so that a levelled and flat surface should result; this surface shall incorporate the reinforcing net in the middle area.

The total time between the application of the mortar, the insertion of the net and the filling shall under no circumstances exceed 10 minutes. The final layer obtained should not be less than 2 mm thick and no more than 4 – 5 mm thick, while the glass fiber net should not be visible.

Attention shall be paid so that the filling process should result in a smooth, levelled and flat surface.

5. Final recommendations:

a. The layer of filling mixture obtained by observing the provisions under 4b shall be left (to dry) for at least 7 days before any other further processing (finishing) procedure.

b. Before any further finishing (plastering or/and coating, applying structural coating etc), after the minimum period of 7 days, the surface undergoing filling is checked for unevenness or/and cracks.

c. The unevenness can be corrected by finishing the surface, being careful not to damage the reinforcing net.

d. The product is prepared only with clean and cold water and only in clean and appropriate containers.

e. The product shall not be applied at air or base layer temperatures lower than + 5°C or exceeding + 35°C

f. When making thermal insulation based on basalt mineral wool plates, it is recommended to use goggles and safety gloves.



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Data Sheet

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POLIFIX OSB 3

Code 1.5.11
Code1.5.13
Product approved within the
"POLITHERM" system
AT 007-03/290-2010

Packaging: The product is packaged in sacks weighing 25 kg, 13 kg respectively; 60 sacks per pallet covered in foil, 108 sacks per pallet covered in foil, respectively.

Storage: The product is stored for maximum 12 months in a dry place, in its original undamaged package, placed on the pallet.

Marking: Each sack is marked by being stamped, on the bottom, with the following information: date of production – five groups of figures symbolizing:
the day, the month, the year ending, production line number, production batch number.

Warranty: The product has a 12 month warranty beginning on the date of production marked on the package; this warranty applies only for the storage conditions mentioned above.

- WARNING!**
- The prepared product is alkaline.
 - During handling and transport, goggles, gloves and anti-dust masks should be worn.
 - In case the product gets accidentally into your eyes, wash immediately with lots of clean water and then quickly contact a doctor!
 - Products with damaged packaging should not be used.
 - The unused items should not be discarded into the sewerage system

Note 1: The present data sheet accompanies each invoice or waybill which refers to the product presented in the sheet.

Note 2: It is forbidden to reproduce parts or fragments from the present data sheet.

Note 3: The present data sheet has been drawn up to properly inform the user about the presented product. The use of this sheet for other purpose than informing you about the product and preparing the technological specifications regarding application is strictly forbidden without the written consent of ITAL-KOL.

Note 4: For other additional information, which you consider you should receive or you find useful, we recommend that you contact the producer in writing, before using the product. Any producer liability regarding failures in applying the product resulted from misinterpreting the text of the present data sheet or from verbal consultancy is excluded.

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