

Product type: Adhesive mortar and filling mixture for fitting and filling the basalt mineral wool plates.

Short description of product: POLI-FIX VB 100 is a mortar based on quartz sand, selected inert materials, Portland cement and specific additives

Areas of application: POLI-FIX VB 100 is an adhesive mortar and filling mixture used for the thermal insulation of conventional facades (walls with traditional coated masonry, walls with autoclave-cured cellular concrete block masonry, bricks, concrete walls, etc...) based on basalt mineral wool rigid plates with a minimum density of 85 kg/m³, having the fiber perpendicular to the surface to be insulated or special rigid plates for covering facades, with a density of 100-160 kg/m³ and the fiber parallel to the surface to be insulated.

Technical data:	Type	flexible
	Adherence to the base layer	min. 1.5 N/mm ²
	Adherence to the base layer after frosting/defrosting	min. 1.4 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. 1.3 N/mm ²
	Adherence of the concrete system-basalt mineral wool	0.03 N/mm ² (cohesive breakage through mineral wool)
	Open time to 5 minutes	1.7 N/mm ²
	Open time to 10 minutes	1.6 N/mm ²
	Open time to 20 minutes	1.5 N/mm ²
	Open time to 30 minutes	1.1 N/mm ²
	Pot life	approx. 90 minutes
	Sliding	maximum 0.1 mm
	Temperature range for usage	+ 5°C – + 35°C
	Average consumption at the tile sticking on plaster, brick, concrete (toothed grouter – 10 mm)	3.2 Kg/m ²
	Average consumption for filling (coating)	3.0 Kg/m ²
	Minimum filling thickness	2 mm/layer
	Maximum filling thickness	4 mm/layer
	Preparation	Only with cold water
	Mixture water	6.0 l / 25 kg

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:

-rigid basalt mineral wool plates with a minimum density of 85 Kg/m³ and having the fiber perpendicular to 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 VB 100 must have the following characteristics:

- a. They should be flat and smooth - uneven elements do not exceed 6-7 mm. Otherwise, the unevenness is levelled during a previous work stage.
 - b. Adherence to cement-based mortars. For coatings made from cement-based mortar at least 28 days old.
 - c. They should be clean, dust and salt free, they should not contain any non-adhesive substances (grease, bitumen, dust, gypsum, dye, old wall painting etc.), with a normal water absorption between 3 % and 8 %.
 - d. They should be free of cracks, Capillary cracks are allowed; they occur due to hydraulic intake, drying and hardening of the cement coating-type base layer. Other cracks caused by incorrect application of layer (coating) and which are major (> 0.5 mm), moving and which worsen simultaneously with the process of hardening are not allowed.
 - e. They should be resistant, compact and free of any brittle parts.
 - f. They should be dry. The residual humidity, measured at about 2-3 cm inside the base layer on which the basalt mineral wool plates are being fixed with POLI-FIX VB 100, should not exceed 2 %;
- If the base layer for which the product is used does not comply with the 6 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 6.0 l (240 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 is obtained. 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 basalt mineral wool plates:

The basalt mineral wool plates 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 basalt mineral wool 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 60%, and the resulted thickness is of maximum 6 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 VB 100 mortar is applied on the basalt mineral wool plates fitted according to point 4a.

The mortar prepared according to point 3 is applied on the plates fitted according to 4a.

Filling is carried out between 24 hours (minimum) and 15 days (maximum) after the insulating plates have been fitted. For filling, POLI-FIX VB 100 is prepared identically with the instructions given at point 3.

The prepared product is gradually applied on the surface made up of the insulating plates fitted, with an indented jointer (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.

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

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.



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CONSTRUIEȘTE
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Data Sheet

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POLIFIX VB 100

Cod 1.5.10
Product approved within the
"POLITHERM" system
AT 007-03/290-2010

- 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.

Note 5: The data presented in the product data sheet and, mainly, the instructions regarding the manner and area of application of the product are based on the skills and practical experience of the person applying the product. Due to a large variety of materials, tools or working conditions which we cannot totally control or foresee or which, even if they are clearly mentioned in the product data sheet, are not correctly assessed by the person applying the product, in each case we recommend, before use, to carry out individual tests of applying the product, so that you can be sure that the product the present data sheet is describing is suitable for your respective field of application.

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