



S.C. ITAL-KOL S.R.L.
RO, 307395 Commune of Șag, Str. XI nr. 64, Timiș county,
Romania,
Tel.: +40 256 395 200; +40 256 395 300, Fax: +40 256 395 100,
Vat no.: RO 6470443, Registration no. with the Trade Register:
J35 / 3176 / 93

CONSTRUIESTE
CORECT

Safety Data Sheet

Ed.1 /Rev.3 | Code F.14.00.05
Reviewed and supplemented on: 03.05.2011

POLIFIX XPS

Code 1. 5. 21
The technical agreement: AT 007-
04/492-2011

Type of product: Adhesive mortar and filling mass for extruded polystyrene montage - in a system of thermal and phonic insulation on the building façades, applicable on concrete, plaster, as well as on OSB3 plates.

Description of product: The POLI-FIX XPS product is a mortar consisting of quartz sand, selected inert materials, Portland concrete and specific additives.

Intended uses: The POLI-FIX XPS product is designed for the montage and the scraping of plates made of extruded polystyrene for the execution of the thermal and phonic insulation system on the building façades.

Technical data:	Type	flexible
	Initial adherence on the support layer (concrete)	min. 1.6 N/mm ²
	Adherence on the support layer after frosting/defrosting	min. 1.0 N/mm ²
	Adherence on the support layer after immersion in water	min. 1.1 N/mm ²
	Adherence on the support layer after ageing	min. 0.9 N/mm ²
	Adherence on the concrete - adhesive - extruded polystyrene system	0.1 N/mm ² (breakage through polystyrene)
	Open time at 5 minutes	min. 1.7 N/mm ²
	Open time at 10 minutes	min. 1.6 N/mm ²
	Open time at 20 minutes	min. 1.2 N/mm ²
	Open time at 30 minutes	min. 0.9 N/mm ²
	Vertical sliding	0.07 mm
	Bending resistance of 2 J,	Without damages
	Compression resistance	8.4 N/mm ²
	Bending resistance	4.5 N/mm ²
	Average consumption at plate sticking	5.0 Kg/mp
	Average consumption upon scraping	4.0 Kg/mp
	Maximum thickness of adhesive upon sticking	10 mm
	Quartz granulation	0.3 – 0.6 mm
	Minimum scraping thickness	2 mm/layer
	Maximum scraping thickness	4 mm/layer
	Preparation	Only with cold water
	Mixture water	6.5 l / 25 kg

Usage manner: The product is used only by trained and qualified operators, complying with the following stages:

1. Necessary auxiliary materials:

The product is used together with:

- Stress relieved extruded polystyrene plates for façade, having a minimum density of 32 Kg/m³
- Fibre glass net with the specific weight of approx. 165 g/m²;
- Pins with plastic rosette, specialised in securing the polystyrene on the façade, with the proper length for mechanical securing of the polystyrene plates;
- Metallic profiles for the base, protection metallic profiles for corners and other profiles for protection and finishings.

2. Inspection of support:

The inspection of the support is an important stage in the process of using the product.

The surfaces on which the POLI-FIX XPS plates made of extruded polystyrene must be:

- a. Plane and smooth - meaning that the inconsistencies should not exceed 3 mm/m. Otherwise, the inconsistencies are smoothed in a previous work stage.
 - b. With an adherence to mortars based on concrete. In case of plasters made of plastering mortar based on concrete, minimum 28 days old. The swollen plasters must be removed.
 - c. Clean, free of dust and salts, lacking anti-adherent substances (fats, bitumen, dust, plaster, paint, old masonry, etc.), with a normal water absorption, ranging between 3% and 8%. The areas in which the mould or fungi occurrence is possible must be cleaned with a wire brush, washed and then left to dry.
 - d. No cracks. The presence of capillary cracks is accepted, due to the hydraulic adherence, drying and hardening of the support based on the plaster concrete, but other cracks, due to the incorrect preparation of the support (plaster), which are major (over 0.5 mm), mobile and advancing while hardening are not allowed.
 - e. Resistant, compact and lacking crumbly portions.
 - f. Dry. The measured residual humidity on the support on which the POLI-FIX XPS polystyrene plates are mounted at 2 - 3 depth, should not be higher than 2%.
 - g. Verticality Before application, the lead wire shall be used to check the verticality of the façade metre by metre, thus observing the eventual deviances from the verticality of the façade. In case the deviance found is higher than 1 cm, this shall be corrected in a previous stage before sticking.
- In case the support on which the product is used does not comply with the 7 minimum conditions presented above, the support is considered improper for the thermal insulation with this product.

3. Preparation manner:

In order to prepare the product, a sack of 25 kg of powder is mixed with 6.5 l (260 ml/kg) of clean and cold water, only in clean and proper recipients, until obtaining a homogenous paste. The mixture is prepared for 2 minutes with a rotational mechanical device, electrical or pneumatic, with low rotations (500 rot./min.) and high power (minimum 1200 W) fitted with a mixing rod specific for mortars. The powder is poured into the water (not the water into the powder) and it is mixed until obtaining a homogenous paste, free of lumps. After mixing, it should be put to rest for 10 minutes and it is remixed for 1-2 minutes, then it is ready to be used.

The paste obtained following the above mentioned procedure shall be used for maximum 90 minutes after remixing.

4. Application of product:

None of the operations described below shall be performed under the direct action of sunlight, in the presence of strong wind currents or at environment or support temperatures under 5°C or higher than 35°C.

a. The montage of extruded polystyrene plates:

The extruded polystyrene plates are mounted in horizontal rows. In order to foresee the vertical sliding, a metallic profile support shall be mounted in a "U" shape in order to support the first row of plates.

Before montage, each extruded polystyrene plate is treated with the prepared mortar (according to point 2), on its sides and inside in 5 - 8 points under the form of disks with the diameter of approx. 100 mm and the height of approx. 1 cm - according to the planarity differences. The disks disposal shall be uniform, so as to cover the corners and the middle of the polystyrene plate. The surface covered by the prepared mortar disposed in disks must be minimum of 60% of the total surface. Immediately after applying the mortar on the extruded polystyrene plate, this is mounted on the support, by gently pressing by hand. The planarity is achieved using the levelling tool with level bubble (minimum length of 1.5 m) and through the gentle movement of the plates applied by simultaneous (tough) pressing.

The adjustment of planarity may be achieved only after minimum 5 minutes from the application of the plate.

The extruded polystyrene plates shall be mounted so that each even row (the second, the fourth, etc.) should be mounted at a distance of half a plate compared to the previous.

After 24 hours from the sticking of the extruded polystyrene plates, they shall be pinned.

In order to increase the mechanical resistance, after the montage of the plates, their mechanical securing shall be executed using pins with plastic rosettes, of proper length, according to the thickness of the polystyrene plate, so that the length of the pin should be minimum 80 mm higher than the thickness of the plate.

The number of securing pins is 3 - 5 pieces/m² and they are applied preferably in the median areas of the plates and the joint areas.

The securing of the pins is performed by making a hole in the plate and the support, of a length equal with the one of the pin, using the rotary hammer drills or the drilling machine (according to the type of support) with the proper drill bit.

b. Scraping:

It is the stage when POLI-FIX XPS mortar, prepared as mentioned in section 2, is applied on the plates mounted according to section 4a.

The scraping is executed after minimum 2 days and maximum 7 days from the montage of the extruded polystyrene plates.

If more than 7 days have passed from the montage of the polystyrene plates until their scraping and, thus, they have been exposed to ultraviolet beams, their surface shall be polished and dusted before the scraping.

The POLI-FIX XPS mortar, prepared as mentioned in section 2, is gradually applied on the surface made of the mounted polystyrene using a hawk (smoothing board, grouter) toothed with teeth of 3 - 8 mm.

As the mortar is applied, the fibreglass net is laid on it while wet, from bottom to top, by hand and using the hawk so that the net should penetrate almost 50% of the filling mass. The net shall overlap minimum 10 cm the joint areas between the strips.

After applying the net, the filling mass is immediately finished so as to include the net, using the hawk.

The total time used for the application of the mortar, the net inclusion and the finishing (scraping) shall not exceed in any way 10 minutes.

The thickness of the final layer obtained must not be smaller than 2 mm and larger than 4 - 5 mm, and the fibre glass net must not be visible.

Attention shall be paid to obtain a smooth, uniform and plane surface through scraping.

5. Final recommendations:

a. The filling mass layer obtained through the application of the instructions from 4b shall be left to dry minimum 7 days before executing any other subsequent finishing.

b. Before a subsequent finishing (plastering and/or masonry, application of structured masonry, etc.), after the minimum 7 day period, the scraped surface shall be inspected for defects of planarity and/or cracks.

c. The planarity defects may be corrected through polishing/puttying, but paying attention not to damage the reinforcement net.

d. The product is mixed only with clean and cold water and only in clean and proper recipients.

e. The product shall not be applied at environment or support temperatures under 5°C or over 35°C.



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Packaging: The product is packed in sacks with a mass of 25 kg, 60 sacks/foiled pallet.

Storage: The product is stored for max. 12 months in a dry place, on pallets, in the original undamaged package.

Marking: Each sack has been marked with the manufacture date on the base - five groups of digits symbolising:
day . month . year . number of manufacturing line . number of manufacture lot.

Warranty: The product has a 12 month warranty from the manufacture date marked on the package, only under the
storage conditions mentioned above.

- ATTENTION!**
- The prepared product is alkaline.
 - Protection glasses, gloves and anti-dust masks shall be worn when manipulating and transporting the product.
 - In case of accidental contact of the product with the eyes, these should be immediately washed with clean water and then consulting the specialised physician!
 - The products in damaged packages shall not be used.
 - The unused rests shall not be disposed of in the sewerage!

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.

Any producer liability regarding failures in applying the product resulted from the causes mentioned above in this sheet is excluded, except for the event when the damages resulted only from the poor quality of the product that the present data sheet refers to.

Note 6: Depending on the evolution of the technical regulations applicable, the producer preserves the right to modify the present data sheet. For the purpose of confirming the data in the sheet, we recommend you to visit the web page: web www.italkol.ro prior to using the product