

## STIROFIX PLUS

Universal adhesive for EPS insulation boards **with fiber reinforcement**

### CHARACTERISTICS

STIROFIX PLUS is one-component powder compound used as adhesive for polystyrene to the following substrates: brick, concrete, aerated concrete, cement and cement-lime mortars. It is also used for **mounting reinforcement** fiberglass mesh onto polystyrene in thermal insulation system (ETICS).

It's characteristics are bigger **grain** size of fillers (up to 1.3 mm) and glass fibers, which additionally provide better resistance to strikes as well as better flexibility.

### COMPOSITION

Mineral fillers, cement, lime, polymer binder, additives, fibers.

### TECHNICAL CHARACTERISTICS

Parameter	Value
Bulk density (EN 1097-3)	≈1270 kg/m <sup>3</sup>
Compressive strength after 28 days (EN 1015-11)	Class CS IV (≥6 N/mm <sup>2</sup> )
Flexural strength after 28 days (EN 1015-11)	≈3.45 N/mm <sup>2</sup>
Adhesion strength on substrate (concrete surface) (EN 1015-12)	≥ 250 kPa
Adhesion strength of the adhesive on EPS board:	
- after 28 days normal conditions (EN 13494)	≥ 80 kPa
- after 3 cycles of conditioning (EN 13494)	
Adhesion strength of the adhesive on EPS board with mesh:	
- after 28 days normal conditions (EN 13494)	≥ 80 kPa
- after 3 cycles of conditioning (EN 13494)	
Capillary water absorption by capillarity, c (EN 1015-18)	W2 (≤ 0,2 kg/m <sup>2</sup> · min <sup>0.5</sup> )
Dry extract content at 105°C (ETAG 004)	99.85/0.15 %
Ash content at 450°C (ETAG 004)	98.24/1.76 %
Water vapour diffusion resistance factor, μ (EN 1745)	5/20
Thermal conductivity coefficient, λ <sub>10°C, dry</sub> (EN 1745)	044 W/m · K

### SUBSTRATE PRAPARATION

Substrate has to be hard, dry, free of dust, grease and other impurities. Soft surfaces should be removed. The following are appropriate substrates: surfaces made of cement, cement-lime, gypsum-lime mortars, treated with smoothing compounds, untreated concretes. Bigger uneven surfaces on the wall should be patched with appropriate mortar and not with thicker layer of adhesive (causes cracking and movement of thermal insulation boards and cracks of the final layer of thermal insulation system.)

Smooth concrete surfaces need to be impregnated by product PODLOGA KVARC.

Key coat also is binding connection between substrate and used material in order to create stronger connection and decrease its consumption.





## APPLICATION

Use approx. 4.8 l of water and add bag of 25 kg of STIROFIX PLUS. Use slow speed mixer and mix it until homogenous compound is formed. Leave material as such rest for about 5 minutes and mix it again. Compound workable for 2-3 hours.

**Bonding:** Before bonding, set starting aluminum board, on which a certain amount of adhesive is applied, in order to seal on the bottom side. Afterwards, the first line of thermal insulation boards is laid.

Adhesive should be applied on edges approx. 5 cm wide and in the middle in 3 stripes or 4-6 dots. Surface of applied adhesive should not be under 40% once the board is pressed against the substrate. Board prepared in this way is then fixed to the wall. Thermal insulation boards are bound next to each other tight enough so the adhesive does not get to contact surface between boards. Boards of adjacent lines are set according to rule for brick connecting (with minimal distance of 30 cm to the new line). Evenness of thermal insulation boards is controlled by lath of appropriate length.

Before setting the anchors, polystyrene should be drilled by appropriate tool at all places defined for anchors. Afterwards, anchors (4-5 pcs/m<sup>2</sup>) are set at knots and at the middle of polystyrene, and, after this, EPS corks are set to these places. In this way, before **mounting reinforcement** mesh, we get completely even surface. This procedure disables occurrence of bumps at the places where anchors are set. Hence, slurs occurrence is prevented due to uneven water absorption and drainage. Connections between boards wider than 2 mm should be filled by thermal insulation material (polystyrene, XPS or mineral wool), which is set in the way that stripes of appropriate width are cut, they are pressed into these places, or by low-expansion PUR foam.

**mounting reinforcement** mesh: Before **mounting reinforcement** mesh, angles of the facility and edges of openings should be additionally strengthened by appropriate angle profiles. Adhesive is applied by **notched trowel** (**notches** of minimum 6 mm) over entire surface of placed thermal insulation board. In such applied adhesive, fiberglass mesh is set and is slightly pressed to stay in upper zone of adhesive. Fiberglass mesh is pressed by pressing down and has to be visible, not completely covered by adhesive. After the first layer dries (approx. 1.5 day for 1 mm thickness in temperature of +20°C and air relative humidity of 65%), apply the second layer of adhesive by flat float so that the fiberglass mesh is completely covered by adhesive. Thickness of basic layer in polystyrene should be 2-3 mm, and second layer should be 1-1.5 mm thick.

Mesh should be overlapped for minimum 10 cm.

Optimum air and wall temperature for work and drying is from +5°C to +25°C.

Avoid working in direct sunlight, wind and rain. Use protective curtains during application.

Wash tools with water immediately after use.

## CONSUMPTION

**Bonding** ≈ 4.5 – 5.5 kg/m<sup>2</sup>

**Mounting reinforcement mesh** ≈ 4 – 5 kg/m<sup>2</sup>

## PACKAGE

Paper bag 25 kg

## LIFETIME

12 months in original, well-sealed and undamaged package.



## WASTE TREATMENT

Pursuant to the Law on waste management ("Official Gazette of the Republic of Srpska", number 111/13 and 106/15), Rulebook on waste categories, tests and classification ("Official Gazette of the Republic of Srpska", no. 19/15), Polystyrene adhesive and reinforcement of mesh is classified as waste with the following classification number

17 09 04 (mixed waste from construction and demolition other than those listed in 17 09 01, 17 09 02 and 17 09 03). Contaminated waste should be delivered to waste management authority.

## LABELLING

Pursuant to Regulation (EC) No. 1272/2008 classification, labeling and packaging of substances and mixtures, product is classified as hazardous.



Hazard class and hazard category:

- Skin irrit. 2
- Skin sens. 1
- Eye dam. 1
- STOT SE 3

Signal word: Danger

Product identifiers:

Compound contains: Portland cement clinker (CAS number: 65997-15-1).

Hazard statements:

H315 – Causes skin irritation.

H317 – May cause an allergic skin reaction.

H318 – Causes serious eye damage.

H335 – May cause respiratory irritation.

Precautionary statements:

P102 – Keep out of reach of children

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P304+P340-IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310-Immediately call a POISON CENTER or doctor/physician.

P333-P313-If skin irritation or rash occurs: Get medical advice/attention

P501 – Disposal of contents /container in accordance with local/ national/regional/international regulations.



**STORAGE**

Store it in dry and ventilated rooms in original package.  
Protect from contact with humidity.

**QUALITY CONTROL**

Parameters of the product quality are defined pursuant to internal product specifications. Achieving declared values is ensured by integrated system of quality management ISO 9001. Verification of declared and limit values are achieved through tests in certified laboratories. Significant importance is paid to protection of environment through integrated system of quality of environmental management ISO 14001.

**OTHER INFORMATION**

In case application or esthetic lacks are noticed in installation, contractor is to stop the works immediately and duly inform the producer, who, hence, shall deal with complaint.

If a larger part of whole of amount of material is applied, complaint is not possible.

It is understood that contractor is aware of product characteristics and the way of its application.

Company Colorit doo shall not assume the damage caused due to contractor's unprofessionalism, wrong application or wrong choice of product for given purpose.

Technical data sheet is meant for guideline in order to achieve the best results in application only.

Read safety data sheet before use of product.

