

## **HY PANOPLY**

# FIBRE REINFORCED, CEMENT BASED, WITH GEL TECHNOLOGY MORTAR, FOR THE INSTALLATION OF THERMAL INSULATION BOARDS AND FIBRE GLASS MESH BOXING, (GP / CS IV / $W_c1$ ).

#### USAGE

High-quality and performance fiber-reinforced mortar, with GEL technology, for thermal insulation boards. Ideal for bonding insulation boards to masonry (made with bricks, autoclaved aerated concrete, fair face concrete, old-plastered surfaces, etc.) as well as for the installation / armored layer of fiberglass on the outer face of insulation boards (adhesive/fiber mesh). Also suitable for various repairing works.

### ADVANDAGES

- Wide range of mixing water
- Excellent workability
- Zero slip
- Extended open time
- Resistant bonding in demanding conditions
- Layer thickness up to 15 mm
- Suitable for all types of insulation boards (EPS-XPS-Rockwool)
- Homogeneous ready-to-mix industrial product with consistently high quality.
- Ensures proper workability, increased application speed providing excellent results.

#### APPLICATION

- The substrate must be clean, stable, and devoid of residues (loose plaster or mortar bits, dust, grease, etc.).
- Bag content is gradually added into clean water (approximately 6.5-7.8 l/bag) while constantly mixing using an electric mixer at low speed until a homogeneous mixture is formed. The mixture is recommended to stay for at least 5 minutes and then to stir again prior to application.

#### Adhesion of insulation board on masonry

- The adhesive is applied on the insulation board surface either by covering its entire surface using a notched trowel (8-20 mm), or by partially covering approximately 40% of the board surface (at the perimeter, by placing 3-4 spots at its center) using a mixture thickness of approximately 2-3 cm.
- After 2-3 days (longer time is required at low temperature) of the fixing of the thermal insulation boards, they must be secured using the special anchor plugs.

#### Fibre glass mesh installation

- An adhesive layer of approximately 3 mm is then applied on the external side of the insulation board. While the adhesive is still fresh, the fibre glass mesh is to box it and to press it using a smooth trowel, to ensure the fully encasement into the adhesive layer.
- The thermal insulation system is completed once the suitable certified top-coat plaster is applied.
- During installation of the insulation boards to the wall, the temperature should be between +5 °C and +35 °C.



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- During the application of the adhesive, and for several hours later, expose to extreme weather conditions should be avoided (such as strong wind, rain, dust, direct sunlight, etc.).
- All the above thermal insulation works must begin after the completion of the internal plastering, the application of floor coverings, etc.
- A waiting time of at least 3-5 weeks is required after the completion of the abovementioned works.

#### COMPOSITION

Mixture of white cement of high specifications, crushed marble of selected grain size and quality, enriched with polymers, polypropylene fibers and other special enhancement additives and minerals.

#### **TECHNICAL DATA**

According to EN 998-1: 2016 classified as: (GP / CS IV / Wc1)

Appearance	Cementitious mortar	Color	White
Grain size	< 1,3 mm	Adhesion strength with the concrete surface.	1.2 N/mm <sup>2</sup>
Bulk density	1330 ± 100 g/l	Adhesion strength with EPS.	141.6 kPa
Water demand	~6.5-7.8 l/bag 25 kg	Flexural strength	$3.8 \pm 0.5 \text{ N/mm}^2$
Fresh mortar density	1670 ± 100 g/l	Compressive strength	9.1 ± 0.1 N/mm <sup>2</sup>
Density in hardened condition	1440 ± 100 g/l	Capillary water absorption	0.27 kg/m <sup>2</sup> ·min <sup>0,5</sup>
Pot life (22 °C )	4 hours	Water vapor diffusion coefficient, $\mu$	5/20
Thermal conductivity coefficient, $\lambda_{10, dry}$	0.41 W/m*K (tabulated mean value, P=50%)	Reaction to fire	A2-s1, d0

#### CONSUMPTION

- Insulation board adhesion: 4-6 kg/m<sup>2</sup>, depending on the type and quality of the substrate.
- Fibre glass mesh reinforcement layer: 1.5 kg/m<sup>2</sup> (1 mm thickness / 100% of the surface).

#### PACKAGING

In 25 kg bags, in pallets.

#### STORAGE

12 months from the production date, in unopened bags. Stored in a shady, dry, frost and humidity free place.



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#### REMARKS

- Much more water than demanded can occur adhesion and strength reduction.
- HY PANOPLY contains cement which is classified as irritant. Consult the safety advises and precautions statements written in SDS of the product.

#### REMINDER

Although specifications and instructions outlined in this report were prepared to the best of our ability, knowledge and experience, they must be taken as indicative results and require verification after numerous applications. Intended users of this product must verify its suitability for the planned application. End user is responsible for all results from the product's use.



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