

Polyap[®] S (MasterCrete[™] WS 701)

Plaster Material for Heat Insulation Sheets

Material Description

Polyap[®] S is a polymer modified and fiber reinforced, ready-to-use cement-based plaster material used in plastering of polystyrene heat insulation sheets.

Complies with EN 998-1

Areas of Application

- As plaster for heat insulation sheets in coating works.
- In plastering of reinforced concrete surfaces before painting.

Characteristics and Benefits

- Enables perfect adhesion.
- Fiber reinforcement minimizes superficial cracks.
- Easy to prepare and apply.
- Long process time.
- Paint can be applied directly on it.
- Resistant to freeze-thaw cycles.

Processing Method


(A) Preparation of Substrate

Before applying **Polyap[®] S**, the insulation boards must be firmly bonded to the surface and mechanically fastened with anchors. The boards should not flex or move under wind load.

(B) Mixing

The required amount of clean water is poured into a mixing container using a measuring tool. **Polyap[®] S** powder is gradually added to the water and mixed with a 400–600 RPM mechanical mixer for 3–5 minutes until a uniform and lump-free mixture is obtained. After allowing the mixture to rest for approximately 3–5 minutes, it should be remixed for 30 seconds before application.

Technical Properties

Technical Report		
Structure of the Material	Mineral fillers, synthetic additives and special cement	
Color	Gray	
Compressive Strength (EN 1015-11)	≥ 6 N/mm² (28 days)	
Adhesion Strength to Polystyrene Board	~ 0,20 N/mm² (28 days)	WK
Flexural Strength	Min. 2 N/mm²	
Application Thickness	Min. 3 mm - Max. 5 mm	
Application Substrate Temperature	+5°C to +25°C	
Service Temperature	-20°C to +80°C	
Maturation Time	3-5 minutes	
Working Time	1 hour	
Water Absorption (EN 1015-18)	W1 (C ≤ 0.40 kg/ m².min ^{0,5})	

The above values are given for +23°C and 50% relative humidity. High temperatures shorten the times, while low temperatures extend them.

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Mixing Ratio

Polyap [®] S	Mixing Water Amount	Density of Mixture
For 1 kg powder	~0.23 liter	~1.86 kg/L
For 20 kg bag	~4.60 liters	

(C) Processing

Polyap[®] S is applied in a single layer onto the heat insulation boards that have been bonded with **Polyap[®] Y** adhesive and mechanically fastened with anchors. To achieve a uniform thickness, the surface is leveled using a 3×3 mm notched trowel.

After the first layer starts to set, the fiber mesh is lightly pressed into the surface. Once the plaster has partially set but before the mesh is fully embedded, the second coat of **Polyap[®] S** is applied. After complete setting, a flexible exterior finish in the desired color can be applied.

Consumption

Approximately 1.51 kg/m² of powder product is required for a 1 mm thick layer.

Points to Consider

- During the application of Polyap[®] S, if the ambient or substrate temperature is below +5°C or above +30°C, the application should be postponed until suitable conditions are reached. Application should also be avoided under extremely hot, rainy, or windy weather conditions.
- Under no circumstances should water or fresh material be added to a mixture that has already begun to set.
- In exterior applications, the coated surface must be protected from direct sunlight, wind, frost, and rain for the first 24 hours after application.
- The surface should not be leveled or smoothed by troweling or sponging after application.
- To protect the plaster from ultraviolet exposure, the final decorative coating should be applied before the surface is excessively exposed to sunlight.

Cleaning of Tools

All the tools and equipment must be cleaned with water immediately after use. Once **Polyap[®] S** has hardened, it can only be removed mechanically from the surface.

Packaging

Supplied in 20 kg polyethylene-reinforced kraft bags.

Shelf Life

12 months when stored under the recommended conditions in unopened packaging. Opened bags should be tightly resealed and used within one week.

Storage

Store in its unopened original packaging in a cool, dry place protected from frost.

For short-term storage, a maximum of three pallets may be stacked on top of each other, and delivery should follow the first-in, first-out principle.

For long-term storage, pallets must not be stacked

Health and Safety

During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

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Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

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DOP NO 2601002	
Polyap® S	
TS EN 998-1 Dış kullanımlar için genel amaçlı kaba sıva harcı (GP)	
Kuru Yığın Yoğunluğu Dry bulk density	1220-1620 kg /m ³
Basınç Dayanımı Compressive Strength	CS IV
Kopma Dayanımı Adhesion	0,5-1,5 N/mm ² (FP=B)
Kapiler Su Emme Capillary water absorption	W1
Su Buharı Aktarım Hızı Water vapour permeability coefficient	µ=5/20
Isıl Geçirgenlik Thermal conductivity mean (λ10,dry mat) values	(λ10,dry mat) 0,49 W/(m.K)
Yangına karşı tepki Reaction to fire	A1

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