

# Polyap<sup>®</sup> Y (MasterCrete<sup>™</sup> WS 700)

Adhesive for Heat Insulation Sheets

## Material Description

**Polyap<sup>®</sup> Y** is a polymer-modified, cement-based, ready-to-use adhesive designed for bonding polystyrene heat insulation boards.

Complies with TS 13566

## Areas of Application

Used as an adhesive for bonding thermal insulation boards in exterior insulation systems.

## Characteristics and Benefits

- Excellent adhesion.
- Easy to prepare and apply.
- Extended working time.
- Resistant to freeze-thaw cycles.

## Processing Method


### (A) Preparation of Substrate

The application surface should be solid, load-bearing, clean, dust-free, and level. It must be completely free from any substances that may reduce adhesion, such as oil, grease, rust, or paraffin residues, and no loose particles should remain on the surface. Irregular surfaces with a depth of 5–20 mm should be repaired with **MBT Tech** repair mortars at least two days before application. If the substrate temperature exceeds +30°C, the surface should be slightly dampened before applying the adhesive.

### (B) Mixing

The required amount of clean water is poured into a mixing container using a measuring tool. Polyap<sup>®</sup> Y powder is slowly added to the water and mixed with a mechanical mixer operating at 400–600 RPM for 3–5 minutes until a homogeneous 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

|   |  |   |
|---|--|---|
| Structure of the Material   | Mineral fillers, synthetic additives and special cement                |   |
| Color   | Gray   | WK  |
| Tensile Adhesion Strength (TS-EN 1348)<br>from Concrete (TS-EN 1015-12)<br>from Polystyrene (TS-EN 13494) | ≥0.50 N/mm <sup>2</sup> (28 days)<br>≥0.08 N/mm <sup>2</sup> (28 days) |  |
| Application Thickness   | Min. 3 mm Max. 8 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 12808-5)   | Max. 5 g   |   |
| Flexural Strength   | Min. 2 N/mm <sup>2</sup>   |   |
| Compressive Strength  | Min. 6 N/mm <sup>2</sup>   |   |

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 <sup>®</sup> Y | Mixing Water Amount | Density of Mixture |
|-----------------------|---------------------|--------------------|
| For 1 kg powder       | ~0.25 liter         | ~1.63 kg/L         |
| For 25 kg bag         | ~6.25 liters        |                    |

## (C) Processing

The adhesive is applied along the edges of the thermal insulation boards as a continuous strip and as spots at the center areas using a mortar trowel. The adhesive should cover at least 40% of the board surface. The boards are pressed and adjusted until the desired level and evenness are achieved. Depending on ambient temperature, once **Polyap<sup>®</sup> Y** has sufficiently set, the boards must be mechanically fixed to the surface using suitable anchors. During installation, the adhesive must not be allowed to dry or form a film on the surface of the boards. On very smooth substrates, **Polyap<sup>®</sup> Y** may be applied using a 10×10 mm notched trowel to ensure full coverage.

## Consumption

Approximately 1.30 kg/m<sup>2</sup> of powder product is required for a 1 mm thick layer.

## Points to Consider

- After the thermal insulation boards are bonded to the wall with Polyap<sup>®</sup> Y, they must be mechanically fixed to the surface using suitable anchors.
- During the application of Polyap<sup>®</sup> Y, if the ambient or substrate temperature is below +5°C or above +30°C, the work should be postponed until suitable conditions are achieved. Application should also be avoided in very hot, rainy, or windy weather.
- In exterior applications, the coated surface must be protected from direct sunlight, wind, frost, and rain for the first 24 hours after application.
- Under no circumstances should water or fresh material be added to a mixture that has already begun to set.

## Cleaning of Tools

All tools and equipment should be cleaned with water immediately after use. Once **Polyap<sup>®</sup> Y** has hardened, it can only be removed from the surface mechanically.

## Packaging

Supplied in 25 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 protective clothing, gloves, goggles, and mask 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

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## Contact

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