

MONNELI EPOMAX

Epoxy Thixotropic Adhesive for Structural Gluing

Product Description

An epoxy adhesive which consists of two components. It is solvent free, with thixotropic effect. Once the two components are mixed, the product becomes easily applicable on both horizontal and vertical surfaces. It adheres perfectly to a variety of supports and has an excellent mechanical resistance.

EPOMAX hardens in a short time without shrinkage and emission of volatile substances.

Uses

EPOMAX is used for structure gluing in building industries such as:

- Concrete
- Natural or artificial stones
- Bricks
- Marble and granite
- Metals
- Wood
- Rigid PVC

EPOMAX can be also used for the structural repairs of beams and pillars, steel plates gluing, filling large cracks in industrial floorings. It is also used in floors under heavy traffic or chemical aggression, and for repairing edges and rigid structural gluing of prefabricated concrete elements.

Advantages

- Solvent free
- Superior moisture and chemical resistant
- Superior durability and toughness
- Enhanced structural appearance - protrusions and punctures eliminated
- High peel and shear strength properties

Instructions for Use

Surface Preparation

Surface must be perfectly clean, compact and dry. Loose particles, varnishes, traces of grease must be eliminated through sand blasting or stiff brushing before the application of EPOMAX.

New concrete or cementitious surfaces should be allowed to cure and have moisture content not exceeding 5%. Old or existing floor should be refurbished mechanically to ensure clear sound substrate.

Concrete supports must be cured for at least 21 days to avoid tension due to hydrometric shrinkage.

Priming

Highly porous substrates or substrates containing micro silica will require priming with PRIMER POXY, a solvent based epoxy primer.

Mixing

EPOMAX is supplied in two pre-weighed packs (Component A – Base and Component B – Hardener) which are ready for immediate in-site use.

Stir in both components before use. Transfer the entire contents of component B (Hardener) into the component A (Base) can and mix with low speed drill and paddle at a speed of 200 – 300 rpm for 2 – 3 minutes till obtaining a mix with uniform consistency. Scrape the sides and bottom of the can during mixing to ensure homogeneity.

Application

EPOMAX should be applied with smooth spatula or trowel in order to achieve maximum adhesion between both surfaces.

After spreading the mix, unite both elements and maintain them tight until EPOMAX hardens completely. The optimum thickness to have a good adhesion is about 1 to 2 mm.

Cleaning

Tools and equipment should be cleaned with SOLVENTE 10 from Colmef immediately after use. Hardened material should be removed mechanically.

Recommendations

- Do not use during rainy days or if temperature is less than +5°C.
- Application should not be carried out when atmosphere humidity exceeds 90%, or when the surface to be coated is less than 3°C above the dew point.
- Do not expose packing to the direct sunrays.

Adhesion Characteristics

Properties	Results
Breakdown flexure test between prisms of concrete glued with EPOMAX	Breakdown of concrete at 100%
Breakdown flexure test between concrete and steel glued with EPOMAX in the interior part	Breakdown of concrete at 100%
Breakdown cut test concrete elements glued with EPOMAX	Breakdown of concrete at 100%

(Test performed on concrete class 500 cured for 28 days, with light sand blasting and application of PRIMER POXY on the glued part.)

Consumption

1 m²/Liter / 1 mm thickness

Packaging

EPOMAX is supplied as a two component 4 Liter Kit

Storage

The product must be stored in dry covered shed at a temperature between 10°C and 30°C in original packing. If stored as above, the product will have a shelf life of 12 months.

Technical Data

Properties	Results
Component A Appearance Color Density at 25°C	Dense paste White 1.6-1.8 kg/L
Component B Appearance Color Density at 25°C	Dense paste Black 1.6-1.8 kg/L
Mixed product properties Mixing ratio Color Consistency Mix density	1 : 1 Grey Thixotropic dense paste 1.7
Solid content	100%
Pot life time of mixture at 30°C	90 minutes
VOC	11.0 g/L
Compressive strength (ASTM C579)	65 N / mm ²
Flexural strength (ASTM C580)	44 N/mm ²
Tensile strength (ASTM C307)	30 N/mm ²
Bond strength (ASTM D4541)	2.5 N/mm ²
Water absorption (BS EN12390)	<0.05%
Joint shear strength (ASTM D 3163)	50 N/mm ²
Complete hardening at 30°C	7 days
Temperature of application	+5°C to +35°C

Test performed at 25°C, 50% of relative humidity and in absence of ventilation.

All values are subject to 5-10 % tolerance

Health & Safety

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

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