

MONNELI BETOCEM 2P

Two Component Polymer Modified Cementitious Mortar

Product Description

A two component cement based polymer modified mortar, designed as a high quality repairing and finishing mortar. It is composed of high resistant hydraulic binders, silica, graded high quality aggregates, special additives, and modified by the addition of synthetic polymer latex liquid to produce highly consistent cementitious mortar, with good handling characteristics.

Uses

BETOCEM 2P is used as an economical and easy to use concrete repair mortar, suitable for:

- Concrete repair in general up to 10 mm thickness per coat
- Filling compound to level off irregularities and fill blow holes and fine honeycombs
- Protective coating for concrete against water/chloride ingress, both on new structures and after patch repairs
- Re-profiling over large areas

Advantages

- Easy to mix and apply
- Excellent mechanical strength
- Excellent adhesion to substrate without the need of primer
- Fully compatible with concrete and with all Colmef cementitious products
- Leveling coats of BETOCEM 2P have extremely low permeability and provide excellent protection against ingress of salt solutions

Instructions for Use

Surface Treatment

All surfaces must be sound, clean, compact, free from dust, grease substances and inconsistent parts. As part of surface preparation it is strongly recommended to expose the fine aggregates of the concrete surfaces by brushing it with a steel brush or light blasting.

Once the surface is ready, clean with blown compressed air and then saturate the surface thoroughly with clean water. Allow the surface to be in moist condition during the application of BETOCEM 2P. No excess water on the surface should be allowed.

Mixing

Both components of BETOCEM 2P are pre measured for use. Pour component A (Liquid) into a suitable mixing container. Add component B (Powder) to the container.

Mix the two components using a slow speed drill (200 – 300 rpm) fitted with a suitable paddle till a uniform lump free homogeneous paste is achieved.

Partial mix can be applied if needed provided that the two components are mixed in ratio of 3 (Powder): 1 (Liquid) by weight.

Application

Use a steel trowel for filling pin holes or fine honeycombs. Once the applied mix starts to partially set, trowel the whole surface to obtain a smooth finish.

To level off irregularities or as protective coating, apply the mix to the prepared substrates by using a steel trowel for a maximum thickness of 10 mm. If more thickness is required, subsequent coats could be applied at 4 to 6 hours interval, depending on ambient conditions. If a smooth finish is required, spray little water on the final surface and trowel again.

Curing

The repaired area shall be cured in accordance with good concrete curing practice and protected from drying winds, sun or excessive heat. Curing shall be done with non-degradable curing compound BETOCURE AR.

Alternatively; a wet hessian cloth covered with polyethylene sheet can also be employed. Curing should begin as soon as final finish is achieved.

Cleaning

BETOCEM 2P should be removed from tools and equipment and mixers with clean water immediately after use. Cured material should be removed mechanically.

Recommendations

- The incorporation of latex polymer reduces the tendency of the mortar to lose water and crack under the strains due to drying shrinkage.
- Do not apply BETOCEM 2P when the surface temperature is less than 5°C or more than 35°C. During summer season, it is recommended to cover the working area to prevent direct sun effect on the substrate or the applied coat.
- Mix enough material that can be applied during the product open wet time.

Yield

BETOCEM 2P yields 16.2 liters when two components are mixed.

Packaging

BETOCEM 2P is packed in 30 kg kit consists of 5.5 kg from Component A (Liquid) and 24.5kg for Component B (Powder).

Storage

Keep in original well closed drum, in dry and sheltered place, at the temperature between +5°C and +35°C. Shelf life is 6 months from date of manufacturing when stored properly.

Technical Data

Properties	Results
Form Component A Component B	Liquid Powder
Color Component A Component B	Milky white Cement grey
Density of component A at 25°C	1.02 kg/L
Dry Density of component B at 25°C	1.38 kg /L
Density of wet mix at 25°C	1.85 kg/L
VOC	5.0 g/L
Consistency	Thixotropic paste
Working time at 25°C	35 minutes
Setting time at 25°C	55 minutes
Maximum layer thickness	10 mm per coat
Adhesion to Concrete at 28 days (BS 1881 Pt 207)	>2.0 N/mm ²
Average Linear Shrinkage (ASTM C531)	0.006%
Thermal expansion coefficient	11 x 10 ⁻⁶ /°C

All values are subject to 5-10 % tolerance

Health & Safety

BETOCEM 2P can be harmful to skin as it contains cement powders which may release alkalis when mixed with water. 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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