ONNELI

CONCRETE REPAIRS

MONNELI BETOFINISH C

Single Component Polymer Modified Fairing Coat (3mm-6mm)

Product Description

A cementitious polymer modified mortar composed of high resistance cements, silica sand and special additives. It is designed to give thin layers to produce a fair faced appearance, to concrete or masonry surfaces. When mixing with water the product becomes easily workable mortar applicable horizontally, vertically and overhead.

BETOFINISH C is applicable for coatings with a thickness ranging from 3 mm to 6 mm thickness per layer.

Uses

BETOFINISH C is designed for applications on concrete or masonry surfaces:

- To produce a smooth fair faced surfaces prior to applying decorative coating
- As a general re-profiling layer over large areas
- For filling pinholes or porous surfaces prior to over coating
- As a minor repair product for defected concrete elements
- For cosmetic repair fairing coat after a major concrete repair is executed in association with any of Colmef cementitious concrete repair products
- For plaster crack repairs

Advantages

- Excellent bond to all concrete supports
- Requires only on site addition of water
- High impact resistance and excellent adhesion to concrete.
- Smooth, easily producing fair faced finish
- After hardening it creates an impermeable layer, resistant against atmospheric gas, frost and thaw cycles.

- Resistant against salts, chloride and chemical attack.
- 2 cm layer of hardened product is resistant against CO₂ diffusion in the same degree as an 80 cm layer of concrete.
- No chloride content
- Fully compatible with other Colmef Repair Products.

Instructions for Use

Surface Preparation

The support must be perfectly cleaned, free from dust, inconsistent parts, traces of form stripping oils, efflorescence, rust etc. Saturate the surface with water to eliminate possible water absorption at the moment of application.

<u>Mixing</u>

To prepare the mortar, pour 4.5 liters of water into a clean container and add slowly the content of BETOFINISH C (25 kg). Mix using spiral paddle in slow speed heavy duty drill for few minutes till a homogeneous lump free consistency mix is achieved. Always add powder to water and not the other way around.

Application

Apply the BETOFINISH C manually with spatula or steel trowel with a thickness of up to 6 mm. The product can be applied in more than one layer. Leave the surface rough if the application of following layers is needed.

Only the last coat can be smoothed with sponge trowel few minutes after the application. If surface dries too fast during the smoothing, it can be dampened by water spraying to facilitate the trowel application. Care should be taken not to overwork the surface. When high mechanical resistant thin plaster is required, BETOFINISH C must then be reinforced with a special fibers tissue. It

is recommended to usecuring compound in high temperature and drying wind conditions. In cold conditions protect the surface from freezing.

Curing

Curing is not generally needed however under extreme conditions - high temperature and dryingwinds, BETOCURE AR shall be used as a curing compound.

Cleaning

BETOFINISH C should be removed from tools and equipment and mixers with clean water immediately after use. Cured material should be removed mechanically.

Recommendations

- Protect the surface from rapid evaporation of water, variations of temperature increase or reduce the initial and final setting time of the product.
- Use cool water to keep the mixed mortar temperature below 30°C.
- Do not expose packing to the direct sun-rays
- In warm weather, store the material in cool place.

Yield

17 liters / 25 kg bag

Packaging

BETOFINISH C is packed in bags of 25 Kg.

Storage

The product must be stored in dry and sheltered place and into the original well closed bag. In these conditions the product will have a shelf life of 12 months.

Technical Data

Properties	Results
Appearance	Grey powder
Density at 25°C	1.8–1.85 kg/L
VOC	2.0g/L
Workability time at 25°C	40 minutes
Adhesion to concrete (BS 1881)	≥1.5 N/mm²
Compressive strength at 28 days (ASTM C579)	≥27 N / mm²
Flexural strength at 28 days (ASTM C580)	7.6 N/mm²
Tensile strength after 28 days (BS 6319 Part 7)	3.06 N / mm²
Coefficient of thermal expansion (ASTM C 531)	7.8 x 10 ⁻⁶ /°C
Rapid chloride permeability (ASTM C1202)	Moderate
Drying shrinkage at 28days (ASTM C 157-93)	<400 microstrains

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

All values are subject to 5-10 % tolerance

Health & Safety

BETOFINISH C can be harmful to skin as it contains cement powders which may releases 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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