

Cemi Monotop

Polymer modified lightweight concrete repair mortar

Description:

Cemi Monotop is a polymer modified, fibre reinforced, low shrinkage light weight repair mortar use for concrete restoration work, structural strengthening and repair work meeting the requirement of class R3 of EN 1504-3.

Uses:

- Suitable for restoration work. Repair of spalling and damaged concrete in buildings, bridges, infrastructure and superstructure works.
- Suitable for structural strengthening. Increasing the bearing capacity of the concrete structure by adding mortar.
- Suitable for preserving or restoring passivity. Increasing cover with additional mortar and replacing contaminated or carbonated concrete.
- Suitable for use as a repair mortar prior to application of Sikagard 62 and 63N.

Characteristics/Advantages:

- Polymer modified for increased durability
- Easy to apply and superior finishing
- Suitable for hand and machine application
- High Build can be applied up to 75 mm thick per application layer
- Class R3 of EN 1504-3
- Low density but still suitable for structural repair
- Sulphate resistant
- Very low shrinkage
- Does not require a bonding primer even when manually applied
- Contains corrosion inhibitor
- Low permeability

Technical Information:

Mixing ratio: 2.8 to 3.3 litres of water for 20 kg powder

Consumption: This depends on the substrate roughness and thickness of layer applied. As a guide, ~ 15kg of powder per cm thick per m²

Compressive strength

After 1 day approx. 15MPa
After 7 day approx. 28MPa
After 28 day approx. 35MPa

Tensile Bending strength

After 1 day approx. 4MPa
After 7 day approx. 6.4MPa
After 28 day approx. 7MPa

Layer thickness: 3-100mm

Initial set time: 2 hours

Final set time: 6 hours

Shelf life: 12 months

Density: 1.3kg/L

Application Instructions

Substrate Quality/Pre-Treatment

Concrete:

The concrete shall be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.

Steel Reinforcement:

Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed. Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting to Sa 2 (ISO 8501-1) Reference shall be made to EN1504-10 for specific requirements.

Mixing

Pour the recommended water in a suitable mixing container. While stirring slowly, add the powder to the water and mix thoroughly at least for 3 minutes during the mixing time adding additional water if necessary to the maximum specified amount and adjust to the required consistency.

Application

Bonding Primer:

On a well prepared and roughened substrate a bonding primer is generally not required for this product.

Cemi MonoTop can be applied either manually using traditional techniques or mechanically using wet spray equipment. Thoroughly pre-wet the prepared substrate a recommended 2 hours before application. Keep the surface wet and maintain in SSD condition. The surface shall appear a dark matt appearance without glistening and surface pores and pits shall not contain water.

When manually applying first make a scratch coat by firmly scraping the repair mortar over the substrate surface to form a thin layer and fill any pores or pits in the surface. Ensure the whole surface to be repaired is covered by the scratch coat. Build up layers from bottom to top by pressing mortar well into the repair area. The surface can be finished according to the requirements using a float while wet or with a relevant rough-cast tool as soon as the mortar has started to stiffen.

Disposal:

Dispose of empty packaging according to local regulations.

