MonniGrout CPC

High strength pile cap cementitious levelling grout

Product Description

A single component, ready to use, which requires simple addi on of water to produce a non-shrink, fl owable and consistent grout repair material for fi lling voids and pile cap re-profi ling. ESPOCEM PC is composed of high resistance hydraulic binder, graded high quality selected aggregates, and special addi ves, which control shrinkage and reduce water demand.

Uses

ESPOCEM PC can be used to provide repairs in a variety of situations, such as:

- Pile cap re-profi ling and encapsulation
- Structural repairs to columns
- Replacing sections of concrete beams
- General grouting and void filing operations. Designed to reinstate large concrete sections, and can be used where access is difficult or congestion of reinforcement limits the use of traditional materials

Advantages

- Free flow mix which requires no vibration or compaction
- Excellent adhesion to concrete substrates
- Low permeability inhibits the ingress of chlorides and carbon dioxide
- Non-shrink with early strength characteristics.
- One part, easy to use product
- Sulphate and chloride resistant
- Compatible to all cementitous products
- Can be pumped or poured manually
- Low alkaline and chloride free product

Usage Instructions

Surface Preparation

The boundary of the repair area should be cut using a concrete saw to provide a neat edge to the damaged area with no feather edging. The area to be repaired may then be broken out up to the prepared boundary. The substrate should be perfectly cleaned, free from dust, inconsistent parts, traces from stripping oils, efflorescence, rust, etc.

Repairs using ESPOCEM PC should be applied in layers up to 25 mm in depth. ESPOCEM PC may be applied for greater depths depending on the design of the structure being repaired.

All reinforcement, which shows signs of corrosion must be fully exposed to an adequate depth behind the bar in order to allow ease of access for the fluid repair compound. The steel bars should be grit blasted to bright metal. Immediately aft er the cleaning of steel bars is completed, coat the bars with BETOFER or EPOZINC as a protecti on layer to prevent further corrosion. After applicati on of the protecti ve materials, allow the coated steel to dry before commencing with the repair application.

Use proper formwork to be able to cast the flowable mix. The formwork should be rigid and ti ght to the substrate to prevent movement and grout loss. It is advisable to use silicon sealant around the edges of formwork to prevent grout loss. To ensure that water is not absorbed from the repair material by the formwork, the interior faces of the formwork should be coated with DISARMANTE release agent.

Normally, it will only be necessary to saturate the surface with clean water in order to prevent possible backwater at the moment of application.

Mixing

To prepare the grout, pour into container about 3.5 Liters of water then slowly add the content of the bag of 25 Kg. of ESPOCEM PC and mix ti ll obtaining a homogeneous product using a slow speed electric drill att ached with proper paddle to obtain the full benefi t of the fl uidity provided.

VER.1.2019

T +974-4460-0862
E office@monneli.com
A New Industrial Area, Street #2, Zone 81, Gate 235
P.O.Box 13310, Doha, Qatar

Application

Apply ESPOCEM PC immediately after mixing. Grout should be poured only from one side of the formwork to eliminate the entrapment of air. This can be achieved by pouring the grout across the shortest distance.

Curing

Any exposed areas not covered by formwork must be cured using a proprietary curing compound, such as BETOCURE, or covered with clean wet Hessian cloth and kept moist until grout surface is ready to be finished. Once the formwork is removed, the total repaired area should be cured by the same process.

Cleaning

All used tools should be cleaned with SOLVENTE 10 before the product cures.

Recommendations

For applicati on during days of high temperature (+35^{o}C or above) the following instructions should be followed:

- Store ESPOCEM PC bags in a shaded area
- Use cold water to mix the product
- Mix enough material to ensure continuous process
-

use of MonniCure S water based curing compound and wrapping with polyethylene sheets.

Cleaning

MonniGrout CGP should be removed from tools and equipment with clean water immediately after use. Cured material can be removed mechanically.

Technical Data

Category	Typical Values
Compressive Strength (ASTM C109)	≥ 70 N/mm^2@ 28 days
Flexural Strength (ASTM C580)	≥ 10 N/mm^2@ 28 days
Fresh Wet Density	2.2 Kg/L
Pot Life	35 minutes
Setting Time (ASTM C953)	4 hours @ 25°C
Expansion (ASTM C940-10a)	2% - 3%
Flow Cone Efflux Time (ASTM 939-10)	25 - 35 Seconds

All values are subject to 5-10% tolerance

Standards Compliance

- ASTM C1107/1107M-14 (previously CRD621) as Grade A.
- ASTM C938-10
- Sampling as per ASTM C943
- EN 934: 2012 (testing as per EN480, EN 13395)

Consumption

MonniGrout CGP usage yields 13 liters for a 25 Kg bag

Packaging

MonniGrout CGP is supplied in 25 Kg bags.

T +974-4460-0862
E office@monneli.com
A New Industrial Area, Street #2, Zone 81, Gate 235
P.O.Box 13310, Doha, Qatar
monneli.com

Shelf Life & Storage

Original sealed bag of MonniGrout CGP has a shelf life of 12 months provided it is stored clear of ground in a dry and shaded place.

Health & Safety

MonniGrout CGP is alkaline and should not come into contact with skin and eyes. Avoid inhalation of dust during mixing. Gloves, goggles and dust mask should be worn. If contact with skin occurs, wash with water.

Splashes to eyes should be washed immediately with plenty of clean water and medical advice sought.

MonniGrout CGP is non-flammable.

VER.1.2019

T +974-4460-0862
E office@monneli.com
A New Industrial Area, Street #2, Zone 81, Gate 235
P.O.Box 13310, Doha, Qatar