Cempatch GP

Single component, general purpose repair mortar

Description

Cempatch GP is a general purpose single component polymer modified, cementitious repair mortar. When mixed with water, Cempatch GP produces a high early and ultimate strength repair mortar.

Applications

- Repair of all types of concrete elements.
- Concrete pavements.
- Car parks and garages.
- Airport runways and aprons.

Advantages

- Extremely low shrinkage which reduces any potential cracking.
- Easy to apply, single component, require only addition of water.
- Extremely low permeability providing excellent protection to steel reinforcement and host concrete.
- Suitable for internal and external applications.
- Vapor permeable.
- Cost effective.

Method of Use

Substrate Preparation

All damaged and deteriorated concrete should be cut back to reach sound concrete and /or to a minimum depth of at least 20 mm.

Corroded steel reinforcement should be grit blasted to remove all rust traces. In case of significant loss in the steel reinforcement cross section, the steel should be replaced.

It is essential to remove all concrete around the exposed steel reinforcements leaving a 10 mm gap. The perimeters of the repair area should be saw cut to a minimum depth of 20 mm. The prepared area should be cleaned thoroughly by brush and / or compressed air. A water tight formwork should be erected to avoid any grout loss.

Priming

All grit blasted steel reinforcement should be primed within 2 to 4 hours with one or two coats of zinc rich epoxy Repcoat ZR.

Technical Properties:	
Compressive strength: BS1881, Part 116*	> 15.5 MPa @ 2 hrs. > 34.0 MPa @ 1 day > 56.0 MPa @ 28 days
Working tme:	≈ 20 - 25 mins. @ 20˚C ≈ 12 - 17 mins. @ 35˚C
Setting time :	
Initial	≈ 35 - 45 mins. @ 25˚C
Final	≈ 48 - 55 mins. @ 25˚C
Vehicular traffic time:	≈ after 2 hrs. @ 25˚C
Pedestrian time:	≈ after 1 hr @ 25˚C
Mixing ratio:	3.75 liter water for 25 kg bag of Cempatch GP
Minimum application temperature:	5°C

* *When using 100 mm cubes, dry cured @ 25°C.*

Areas to be repaired with Cempatch GP should be soaked with clean water for several hours before applying the repair mortar to ensure damp saturated substrate. All excess water should be removed. Provided that the substrate has been thoroughly soaked with clean water, an independent primer is not normally required.

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. 3.75 liters of clean water should be added to clean container. The powder is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm). Mixing should be continued for 3 minutes until a uniform consistency is obtained.

Placing and Finishing

Cempatch GP should be poured in a single continuous operation and within 8 to 12 minutes from mixing.

Depending on the surface texture required, the poured mortar may either be smoothed by steel, wood trowel or broom finished using a suitable brush or roller when the repair mortar begins to set.

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Curing

Since Cempatch GP is a cementitious base material, it should be cured in a similar manner to concrete. Curing can be conducted by either using concrete curing compound such as Setseal 33 or by using wet hessian sheets and polyethylene.

Cleaning

All tools should be cleaned immediately after use with fresh clean water. Hardened materials should be cleaned mechanically.

Packaging

Cempatch GP is available in 25 kg bags.

Thicknesses and Size Limitations

Cempatch GP can be applied in a single application in sections up to 100 mm thick. Minimum thickness is 10 mm. For sections deeper than 100 mm, to reduce the generated heat of hydration, 8 - 12 mm well graded washed aggregate should be added at ratio of 10 kg of aggregate per 25 kg bag of Cempatch GP

Yield

Approximately 12.5 liters/ 25 kg bag.

Storage

Cempatch GP shelf life is 12 months if stored at temperatures between 2°C and 50°C.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

Cautions

Health and Safety

Since Cempatch GP contains Portland cement and sand, Cempatch GP may cause irritation to skin or eyes.

In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary.

Fire

Cempatch GP is non-flammable.

For further information refer to the Material Safety Data sheet.

More from Don Construction Products

A wide range of construction chemicals products are manufactured by DCP which include:

- Concrete admixtures.
- Grouts and chemical fixings.
- Concrete repairs.
- Industrial floorings.
- Structural protection.
- Waterproofing.

Note:
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