

Cempatch RF

One component high strength fibre reinforced cementitious repair mortar



Description

Cempatch RF is a one component polymer modified and fibre reinforced repair mortar. Cempatch RF is a blend of dry powders, selected aggregates and fibres which when mixed with water produces a thixotropic mortar suitable for vertical and overhead application.

Applications

- ▲ Repair of all types of structural concrete where high strength and extremely low shrinkage properties are required.
- ▲ For the repair of vertical and overhead elements.
- ▲ As a repair mortar for all structural elements in buildings, water retaining structures, industrial plants, bridges, etc.

Advantages

- ▲ Shrinkage controlled polymer modified cementitious repair mortar.
- ▲ Easy to apply, single component, requires only addition of water.
- ▲ Extremely low permeability to water, providing excellent protection to steel reinforcements and host concrete.
- ▲ Thixotropic properties allowing extra high build for vertical and overhead applications.
- ▲ Suitable for internal and external application.
- ▲ Water vapour permeable.
- ▲ Cost effective, hand applied no formwork is required.

Method of Use

Substrate Preparation

All damaged and weak concrete should be cut back to reach sound concrete and/or to a minimum depth of at least 10 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. Remove all concrete from around exposed steel reinforcements by 10 mm thickness.

The perimeters of the repair area should be saw cut to a minimum depth of 10 mm. The prepared area should be cleaned thoroughly by brush and/or compressed air.

Technical Properties:

Compressive strength:	> 40 MPa @ 7 days
ASTM C109/109M-02	> 50 MPa @ 28 days
Colour:	Grey
Density:	2200 kg/m ³
Mixing ratio:	3.75 litre of water for 25 kg bag of Cempatch RF
Drying shrinkage:	< 300 microstrain
ASTM C157	
Minimum application temperature:	5°C

Priming

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

Areas to be repaired with Cempatch RF should be soaked with clean water before applying the repair mortar. All excess water should be removed prior to applying Cempatch RF.

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. 3.75 litre 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 - 600rpm). Mixing time should be continued for 3 minutes until uniform consistency is obtained.

Placing and Finishing

Cempatch RF can be applied by trowel or hand. The mixed mortar should be applied using firm pressure to fully compact the mortar to ensure good adhesion with the steel reinforcements and the substrate. Finishing and leveling should be carried out initially by wooden or plastic float. Final finishing should be carried out using steel float.

Cempatch RF

Curing

As Cempatch RF is a cementitious based material, it should be cured in a similar method to concrete. Curing can be conducted by using Setseal A or by wet hessian sheets covered with polyethylene sheets.

Cleaning

All tools should be cleaned immediately after application using fresh water. Hardened materials must be cleaned mechanically.

Packaging

Cempatch RF is available in 25 kg bags.

Thicknesses and Size Limitations

Cempatch RF can be applied in a single application for sections up to 20 mm thick in overhead applications and 30 mm thick in vertical applications. Thickness should not be less than 10 mm deep in all applications.

Cempatch RF repair area should not exceed 2.5 m² in single application.

Yield

Approximately 13 litre per 25 kg bag. (77 bags/m³).

Storage

Cempatch RF has a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 50°C in original unopened bags.

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

Cautions

Health and Safety

Cempatch RF 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.

For further information refer to the Material Safety Data Sheet.

Fire

Cempatch RF is nonflammable.

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- ▲ Concrete repair.
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- ▲ Adhesives.
- ▲ Tile adhesives and grouts.
- ▲ Building products.
- ▲ Structural strengthening.

Note:

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