

FIBRALCHOC® NF

REPAIR MORTAR

Special mortars



Update on 03/04/2024

Properties

Single-component repair mortar based on PMES cement, class R4 according to EN 1504-3 and NF according to NF030 - AFNOR CERTIFICATION, www.marque-nf.com.

Mortar made of mineral fillers and additives and which is reinforced with synthetic fibres for repairing concrete.

A grey-coloured thixotropic mortar is obtained on mixing.

ADVANTAGES :

- High degree of adhesion and mechanical strength,
- Compatible with all types of dry concrete,
- Alkaline therefore provides maximum protection of concrete reinforcement framework,
- Resistant to atmospheric contamination and to carbonation,
- Resistant to freeze-thaw cycles with de-icing salts,
- Fast drying : can be covered with a coating after just a few days,
- Perfect finish : smooth appearance,
- Cohesion and reduced shrinkage effects improved by the fibre content,
- Suitable for carrying running water and for heavy traffic,
- Resistant to hydrocarbons,
- Passivating mortar for steel (tested from 10 mm thickness).

Domains of application

NOTE : FIBRALCHOC® NF is intended for selective repairs.

It cannot therefore be used for screeds. Please contact us for this type of application.

On floors, walls or ceilings: interiors and exteriors.

- Repairs in aggressive environments such as : wastewater treatment plants, sewerage networks, etc.
- Mortar suitable for exposure classes XC1 to 4, XD1 to 3, XS1, XF1, XF3, and XA1 to 3, as defined by the NF EN 206/CN Concrete Standard
- Repair and filling of spalls, step treads, holes, grooves, test sample holes, posts, underlay, balusters, parapets, edge beams, making good lip seals, beam joints.
- Finishing under-surfaces of bridge decks, new or existing internal floors before fitting of floor coverings.
- Joints of double wall elements.

- Repairs to structures which have deteriorated: pillars, slabs, posts, arches, inverts (bridges, viaducts etc.).
- Structures subject to fire regulations.

Characteristics

Appearance	Grey Powder
Particle size	0 to 1,25 mm
Density of the fresh mortar	2,17
pH of mixed product	13
Temperature of use (support et ambient)	+ 5°C à + 35°C
Application thickness	5 à 60 mm
Working time at 20°C	Around 1h30
Return to traffic for ground repairs	72 h
Recovery time at 20°C	7 days minimum
fire classification	A1

Use

Preparation of substrates :

FIBRALCHOC® NF is not intended to be applied to plaster or painted surfaces, but to cement based substrates : concrete, cement rendering, masonry components.

The substrate must be hard, sound, cohesive, clean and wetted to refusal in advance (but free of puddles at the time of application).

Test all surfaces to be repaired using a hammer to identify loose areas.

Chip out and remove all defective areas and leave clean edges on the edges of the repair area.

FIBRALCHOC® NF is to be applied onto rough substrates or substrates which have been roughened by mechanical action.

Completely remove any corroded framework and if necessary push back any framework which is too near the surface.

Remove rust from steelwork using a wire brush or by sand-blasting and then carefully remove all dust. Apply RAVALCHOC® PROTECTOR AC to protect reinforcement before application of FIBRALCHOC® NF.

Do not apply on frozen substrates or when there is a risk of frost within 24 hours.

Surfaces can be produced by following existing joints.

Instructions for use :

Part mix : it is advisable to fully re-homogenise the product in a trough or on a clean, dry, non-absorbent floor.

This prevents differences in mechanical characteristics and colours occurring between the start and end of a bag.

When applying at temperatures above + 35°C, store FIBRALCHOC® NF in a cool room so that the temperature of the fresh mix is about + 20°C to + 25°C.

In cold weather it is advisable to mix using tepid water (+ 25°C) to ensure fast hardening.

FIBRALCHOC® NF can withstand rain six hours after it is applied (at + 20°C).

Apply conventionally using a float or trowel, pressing hard on the mortar.

If necessary level the surface using a float or expanded polystyrene once the mortar starts to drag.

FIBRALCHOC® NF can also be applied mechanically by spraying at an appropriate consistency.

Mixing :

The user must determine the amount of water required to give the consistency that they need. Powder or water can be added within a reasonable time after mixing to alter the consistency as desired, without affecting the characteristics of the product.

Mix FIBRALCHOC® NF using a trowel or a mixer at slow speed (500 rpm) with from 3 to 5 liters of water per bag.

Firm vertical consistency : 3 liters of water per bag.

Plastic horizontal consistency : between 4.2 and 5 liters of water per bag.

Character standardized to 3.25 L of water per bag.

Special case* :

- Application of FIBRALCHOC® NF on a soffit : Apply the mortar on COPOX COLLE REPRISE that is still tacky.
- Joints of double wall elements : Apply FIBRALCHOC® NF on a slurry of FIBRALCHOC® NF + TECHNALATEX® that is still fresh (1 volume of water to 1 volume of TECHNALATEX®).
- On porous concrete : wet, and brush on a very thin slurry of FIBRALCHOC® NF mixed using one liter of clean water for 5kg of powder. Apply FIBRALCHOC® NF onto the fresh slurry, pressing hard on the mortar. Finish smoothing using a polystyrene float.

*Product performance under NF certification is verified without slurry.

Subsequent coatings : mineral coatings, thick or semi-thick plastic coatings, anti-carbonation coating.

Recommendations :

For corners, edges over long lengths : shutter using smooth panels or rules.

FIBRALCHOC® NF can be left bare and exposed or a covering can be applied directly onto it.

Do not apply in heavy rain or on substrates which are under water.

Take the usual precautions in very hot weather.

Never add additives or any other additional materials.

Performances

Adhesion to sand-covered concrete in accordance with NF EN 1542 >2 MPa.

Mechanical strength values on 4x4x16 at 20°C in MPa (dosage : 3.25 L of water for a 25 kg bag) :

	24 h	7 days	28 days
Compressive strength	29	58.5	73
Flexural strength	4.3	5.5	6.6

Laboratory test.

Setting time :

	Beginning	End
Mixed mortar (3.65 L of water per 25 kg bag)	4h48	5h38

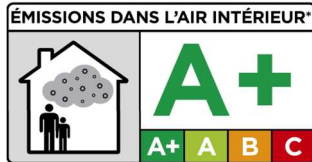
Laboratory test.

Proportion

2 kg /mm thickness / m² approximately of mixed product but will depend on the nature and surface roughness of the substrate.

Safety

Refer to the safety data sheet.



**Information on the level of emissions of volatile substances into indoor air presenting a risk of toxicity by inhalation, on a class scale ranging from A+ (very low emissions) to C (high emissions).*

Storage

1 year in unopened original packaging, protected from moisture.

Packaging

25 kg bag
Pallet of 1400 kg, i.e. 56 bags

The data sheets are written in French. The English version is provided for informational purposes. In case of conflict, only the French version shall prevail between the parties.

CE marking applies to the European Economic Area (EEA)

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TAM GROUPE - ZI Avenue Albert Einstein 77550 Moissy Cramayel - France 09 FIBNF-RPC-2013 07 01-00003
EN 1504-3 : 2006 - Class R4 FIBRALCHOC anglais Concrete Repair Product for Structural Repair CC Mortar (based on hydraulic cement) Compressive strength : R4 Chloride ion content ≤ 0.05% Adhesion ≥ 2.0 MPa Carbonation resistance : successful test Modulus of elasticity = 25.8 GPa Thermal compatibility Part 1 ≥ 2.0 MPa Capillary absorption ≤ 0.5 kgm-2h-0.5 Dangerous substances complies with 5.4 Fire Rating : Euroclass A1

The information provided in this document is for guidance only and reflects our current knowledge. We shall not be responsible or liable for any improper or inappropriate use of our products.

Given the wide range of possible uses, our recommendations do not exempt users from carrying out their own tests. Our laboratory and technical department will be happy to provide you with any information you may require.

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