

REPSTAR

HIGH STRENGTH NON-SHRINK GROUT

Special mortars



Updated on 02/08/2024

Presentation

Mortar made of pure cement PMES, graded sands, mineral fillers and suitable additives to achieve high performance. REPSTAR is a product ready to be mixed with water. Depending on the quantity of water or the water ratio, this product can produce:

- a mortar of plastic consistency with grey colour for repairing class R4 according to NF EN 1504-3,
- a mortar of fluid consistency, without segregation for grouting according to NF EN 1504-6.

Advantages:

- Compatible with all types of dry concrete,
- Great versatility
- Alkaline, and so provides maximum protection of reinforcement in concrete,
- Ease of application and preparation,
- Perfect finish: uniform appearance (concrete appearance),
- High initial and final mechanical strength values,
- Excellent bonding to most substrates,

Applications areas

- Sealing of threaded rods (anchor bolts),
- Sealing and anchoring of posts of load-bearing panels, rails, runways,
- Watertight sealing of pipes in basins, swimming pools and WWTP (sail crossing)
- Matting for supports (filling of voids),
- Assembly of prefabricated elements.
- Resumption under work
- Repair and filling of spills, stair nosings, holes, bleeds, coring, posts, walls, balusters, parapets, edge beams, repair of joint lips, beam angles.
- Restructuring of degraded structures: pillars, slabs, posts, vaults, rafts (bridges, viaducts).
- Mortar suitable for exposure classes XC1 to XC4, XD1 to XD3, XS1, XF1, XF3, A1 to XA3 defined by the concrete standard NF EN 206/CN.

Characteristics

Appearance	Grey powder
Granulometry	0 to 2 mm
Powder density	Approximately 1.7
Density of mixed product	Approximately 2
Workability	More than 90min (may vary depending on temperature)
Great durability	
Very high adhesion to concrete and steels	
Pumpable mortar	
Application thickness from 10 to 75 mm per pass	
High resistance to freezes/thaws	

Installation / Product application / usage

Preparation of the substrates:

REPSTAR is not intended for application on plaster or painted surfaces, but on cement-based substrates: concrete, cement rendering, masonry elements.

The substrate must be hard, sound, cohesive, and clean, and wetted to refusal in advance (but free of puddles at the time of application). Sound all surfaces to be repaired with a hammer to detect non-adherent zones. Eliminate defective parts by chipping and leave sharp edges along the perimeter of the work. REPSTAR is applied on a substrate that is rough or is roughened by mechanical means.

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

Mixing:

the user will determine the quantity of water according to the consistency required by the application.

Mix REPSTAR using a mixer at slow speed (400 rpm), with approximately 3,1 liters of water per bag (fluid and pourable consistency).

The gap thickness is from 10 to 75 mm in a single pour or layer.

Can be added load (see the technical support)

Temperature of application (substrate and atmosphere):

+5°C to 35°C.

To apply when the temperature is above +35°C, store the REPSTAR in a temperate environment so that the temperature of the fresh mixture is within the range of 20 - 25°C. In cold weather, we recommend mixing with lukewarm water (25°C) to obtain rapid hardening. The pot life of the fresh mortar is approximately 90 min depending on the ambient temperature. Never add admixtures or other additives.

Curing:

Cure visible areas with a curing product, a film of water or damp cloths.

Recommendations:

Create airtight formwork using smooth panels or rulers.

Performances

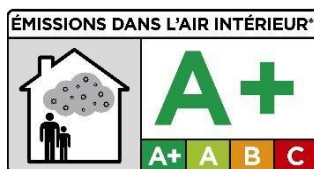
Compressive Strength (MPa)	
1 day	> 25
7 days	> 45
28 days	> 58
Flexural Strength (MPa)	
1 day	> 4.0
7 days	> 5.0
28 days	> 6.0
Chloride ion content	≤ 0.05 %
Fire classification	A1
Consistency	FLUID
Water dosage	3,1 liters
Water/Solid ratio	0,124
Approximate Yied	13.3 Litres

Proportions

Approximately 2 kg of mixed product / mm of thickness / m² but depends on the nature and 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 from A + (very low emissions) to C (high emissions) according to*

Shelf life and storage

12 months in its unopened original packaging

Keep stored in an environment away from moisture.

Packaging

25 kg bag.

1400 kg / pallet (56 bags).

Technical 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.

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Factory - ZI Avenue Albert Einstein 77550 Moissy Cramayel - France 21
REPSTAR-RPC-2021 07 07-00001 EN 1504-3 : 2006 - Class R4 EN 1504-6:2006 - Floor category
REPSTAR Concrete Repair Product for Structural Repair : CC Mortar (based on hydraulic cement) Anchoring product Compressive strength : R4 Chloride ion content $\leq 0,05\%$ Adhesion $\geq 2,0$ MPa Carbonation resistance : passes Elastic modulus = 25,8 GPa Determination of retraction and expansion $\geq 2,0$ MPa Freeze-thaw cycling with icing salt immersion, part 1 $\geq 2,0$ MPa Capillary absorption $\leq 0,5$ kgm-2h-0,5 Testing of anchoring products by pull-out method : Displacement $\leq 0,6$ mm at load of 75kN Dangerous substances comply 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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