



DYCO



REPSTAR

HIGH STRENGTH NON-SHRINK GROUT

Updated: August 5, 2021

Properties

Mortar made of pure cement, 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 color for repairing class R4 according NF EN 1504-3,
- a mortar of fluid consistency, without segregation for grouting according 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 (concret appearance),
- High initial and final mechanical strength values,
- Excellent bonding to most substrates,

Characteristics

Appearance: grey powder

Grading = from 0 to 2 mm

Density of the powder: approximately 1.7

Density of the mixed mortar: approximately 2

Reaction to fire: class A1 /A1fl

workability: more than 90 mn

Compensated shrinkage grout without bleeding

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

D.o.T. Highways Spec: - 2601 Compliant

Application Areas

- Sealing of concrete irons (HA steels),
- 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).

Use

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 liters of water per bag (plastic consistency) and 4 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)

Instructions for Application

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.

Proportions

Approximately 2 kg of mixed product / mm of thickness / m², but depends on the nature and roughness of the substrate



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REPSTAR

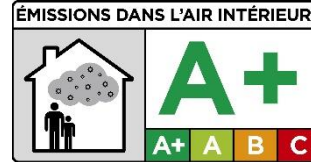


Performances

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	
Adhesion strength by pull-off test	3.3 Mpa	
Chloride ion content	≤ 0.05 %	
Freeze-thaw cycling with icing salt immersion	2.9 Mpa	
Resistance to Carbonation	Passes	
Elastic Modulus	25.8 GPa	
Testing of anchoring products by the pull-out method	≤ 0.6 mm at 75 kN load	
Capillary absorption	0,1 kg/(m ² x h ^{0,5})	
Fire classification	A1	
Consistency	Plastic	Fluid
Water dosage	3 liters	4 liters
Water/Solid ratio	0,12	0,16
Approximate Yied	13,3 Litres	13,8 Litres

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

6 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
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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 ≤ 0,05%
Adhesion ≥ 2,0 MPa
Carbonation resistance : passes
Elastic modulus = 25,8 GPa
Determination of retraction and expansion ≥ 2,0 MPa
Freeze-thaw cycling with icing salt immersion, part 1 ≥ 2,0 MPa
Capillary absorption ≤ 0,5 kgm-2h-0,5
Testing of anchoring products by pull-out method :
Displacement ≤ 0,6 mm at load of 75kN
Dangerous substances comply with 5.4
Fire rating : Euroclass A1

SIMPLIFIED TEST REPORT

No. 21/32303410-S

Bellaterra, 02nd August 2021		Product:	
TAM GROUPE ZI Avenue Albert Einstein- CS 90043 77555 Moissy- Cramayel Cedex France		REPSTAR	
Products and systems for the protection and repair concrete structures. Part 6: Anchoring of reinforcing steel bar. UNE-EN 1504-6:2007			
Tests	Results		Requirements
1- Testing of anchoring products by pull-out method. UNE-EN 1881:2006	Displacement 75 kN (mm)	Maximum load (kN)	According to UNE-EN 1504-6:2006, Displacement \leq 0,6 mm at load of 75 kN
- Wet test	0,36	105,3	