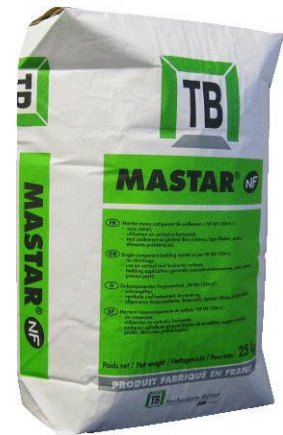


CALSTAR®

BEDDING AND GROUTING MORTAR

Special mortars



Update on 23/07/2024

Properties

CALSTAR® is a hydraulic bedding mortar according to EN 1504-6, a grouting mortar of category 8 according to NF P 18 821 and NF according to NF030 - AFNOR CERTIFICATION, www.marque-nf.com, made up of PMES cements, pure and calibrated sands, additives appropriate.

Its properties are as follows:

- Controlled expansion,
- Compensated shrinkage,
- Outstanding initial and final mechanical strength values,
- Very strong adherence to concretes and steels,
- Resistance to seawater and to high-sulphate water – per P 18 837.

CALSTAR® is a product ready to be mixed with water.

It can produce, depending on the quantity of water :

- A mortar of plastic consistency for bedding on floors,
- A mortar of fluid consistency, without segregation, for grouting.

CALSTAR® is free of metallic particles.

Domains of application

- Bedding of rebar (deformed or smooth),
- Bedding of threaded rods (anchor bolts),
- Bedding of posts,
- Underfilling,
- Precision grouting,
- Grouting of concrete or metal baseplates,
- Grouting of machine bases, bridge bearings, generators, compressors, etc.,
- Keying.

Characteristics

Appearance	Grey powder
Grading	Max 2 mm
Density of the fresh mortar	Approximately 2,1
Usual temperature of use	+ 5°C à + 35°C
Thickness	1 to 10 cm Contact us for greater thicknesses, or it is possible to make CALSTAR® concrete (see Performances)

Use

Depending on the quantity of water added, CALSTAR® can be used for grouting or for bedding.
With a suitable consistency, it can be poured or pumped.

Types of substrates :

Concrete, rock, freestone.

Condition of the substrate :

Clean, free of dust and grease, not frozen, with all friable parts eliminated, moistened 24 hours in advance (but eliminate any residual water).

The concrete substrates must be at least 28 days old.

Standardized character :

- Grouting with 3,85 liters of water per 25 kg bag,
- Bedding in floor/vertical substrate with 3,7 liters of water per 25 kg bag.

Mix in a vertical mixer or a screw agitator at a slow speed of rotation (approximately 500 rpm).

It is important to put all of the water in first, then add the powder.

The mortar obtained must be homogeneous and free of lumps.

Do not add water to the mixture.

Grouting :

The mortar obtained has a viscous but fluid consistency.

After mixing, pour without waiting.

Fill the volume slowly, from only one side, and without interruption up to refusal.

Have the grout travel the shortest possible distance.

Depending on the time between mixing and pouring, a skin may form on the surface of the mortar.

Remix and pour without waiting.

The mixture must be used within 2 hours of mixing at 20°C.

Once applied, the mortar will be protected from drying by spraying a curing agent (PROTECSOL® line).

Performances

Do not mix CALSTAR® at temperatures below 0°C.

Attention: at low temperatures, below 10°C, the strength of the early-age concrete increases more slowly.

Take the necessary precautions.

Adhesion on sandblasted concrete according to NF EN 1542 > 2 MPa.

Mechanical strength values on 4x4x16 at 20°C in MPa (dosage : 3,7 L of water for a 25 kg bag : Plastic consistency for beddig) :

	24 h	7 days	28 days
Compressive strength	22,7	58,5	78
Flexural strength	5,2	5,8	9,5

Laboratory test

Setting time :

	Beginning	End
Mixed mortar (3,7 L of water per 25 kg bag : plastic consistency)	5h54	7h14

Laboratory test.

Case of CALSTAR® concrete (mortar-aggregate proportion : 1-1) :
Plastic consistency : 3,7 L of water / 25 kg bag

	24 h	7 days	28 days
Compressive strength	21,6	62,9	71,8
Flexural strength	4,8	8,5	11,3

Laboratoy test on 4 x 4 x 16 specimen

For CALSTAR® concrete, mix 25 kg of gravel with a particle size of 3/8 or 4/8 + 3,7 L of water per 25 kg bag of CALSTAR®.

For CALSTAR® concrete, it is recommended to contact the sales manager in your region.

Note : the NF certification of CALSTAR® was obtained with the ready-to-use mortar, without adding gravel.

Proportion

Grouting/fluid consistency : 3,85 liters of water per 25 kg bag.

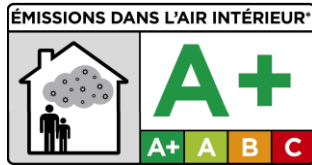
Bedding in floor position/plastic consistency : 3,7 liters of water per 25 kg bag.

Volume yield:

13 liters of mixed product / 25 kg bag.

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

12 months protected from humidity.

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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TECHNIQUE BETON - ZI Avenue Albert Einstein 77550 Moissy Cramayel - France	
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CALSTAR-RPC-2013 07 01-00001	
EN 1504-6:2006 - Floor category	
CALSTAR	
Anchoring product	
Anchoring product Testing of anchoring products by pull-out method : Displacement $\leq 0,6$ mm at load of 75kN Chloride ion content : 0,039 % Fire rating : Euroclasse A1 Dangerous substances comply with 5.3	

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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