

JOINTING

High Tech 310

Bemix High Tech 310 is a pumpable, thixotropic, certified grout with expansion. Mainly used for jointing where a joint with good seal and high strength is required and for anchoring steel in vertical surfaces. Bemix High Tech 310 is easy to apply by hand or with suitable pumping equipment. Used for jointing of concrete elements and natural stone where a joint with good seal and high adhesion is required. For installing bolts and steel in both horizontal and vertical holes. Also suitable for smaller castings with high requirements and filing jobs where formwork cannot be used; the colour is adapted to constructions cast from construction cement. Meets the requirements of CR 059. Approved for concrete repairs according to EN 1504-6.

Work description

Preparation:

Clean the substrate carefully and if possible pre-water 24 hours before casting. Remove surface water immediately before casting.

Mixing:

Do not mix by hand. The best mixer is a rapid mixer type Rojo 50, automatic mixer or pan mixer. For smaller quantities, mixing with a drill and mixer attachment works well. Mix to an even and clump-free consistency. Always pour in the water first. Use a graduated mixing vessel and ensure that the temperature of the mix is 20 °C. The mixed concrete must be used within 20 minutes.

Jointing:

The mix is pumped into the joints with a Bemix concrete pump. Smaller quantities can be applied manually into the joint with a Bemix concrete injector. For jointing in sub-zero temperatures use Bemix High Tech 310 FF.

Reinforcement:

Joints over 20 mm layer thickness need to be reinforced with the prescribed covering layer.

After treatment:

Concrete that needs to be removed is scraped off with a finishing trowel once it has hardened sufficiently. Visible surfaces in the joint are shaped to the required appearance.

After curing:

When after treatment is done protect free surfaces from drying out. Apply a water mist and protect with plastic sheeting. Keep damp for the whole first week.

Anchorage:

With repairs the work should be performed according to EN 1504-10.

Preparation:

Drilling is done at an angle to the surface, including for vertical surfaces. The drill hole should be the diameter of the item to be embedded plus 10 mm. When a hole has been drilled, it is cleaned out with compressed air and finally carefully plugged before the next hole is drilled. The drill hole is filled with water at least 24 hours

before installation. Clean out the hole with compressed air immediately before installation. There must be no free water in the hole before installation. After the hole has been blown clean, installation must be done immediately. The bolt to be embedded must be free of loose rust, oil, grease or other contaminants.

Installation:

The concrete is injected into the drill hole with a Bemix concrete pump or manually with a Bemix concrete injector. For installation in sub-zero temperatures use Bemix High Tech 310 FF. The bolt is then pushed carefully down into the hole with a backwards and forwards motion so that air bubbles are pressed out of the concrete. The entire hole must be full of concrete after the bolt has been installed. The bolt is held in place for support. The support must not be allowed to get stuck.

After curing:

When after treatment is done protect free surfaces from drying out. Apply a water mist and protect with plastic sheeting. Keep damp for the whole first week. The support can be dismantled the day after casting.

Technical data

General		
Binder type	Cement CEM I 52,5 R	
Stone max	1 mm	
Consumption	25 kg gives about 12.5 l of mix	
Layer thickness jointing	Unreinforced 5–40 mm	
Layer thickness other applications	Unreinforced 5–20 mm	
Max water addition	3.75 l per 25 kg	
WCR with max water addition	0,39	
Fresh mortar	Value	Method
Chloride content	< 0,1 %	SS-EN 196-2:2013
Consistency	Thixotropic	
Water separation	0	SS 137540:2008
Volume increase	0–1 %	SS 137540:2008
Air content, 5 min	>4 %	SS-EN 1015-7:1999
Cured concrete	Value	Method
Frost resistance, 56 cycles	0,02 kg/kvcm	SS 137244 1A
Pressure resistance at 20°C		
After 24 hours	> 35 MPa	SS-EN 196-1:2005
After 7 days	> 60 MPa	SS-EN 196-1:2005
After 28 days	> 70 MPa	SS-EN 196-1:2005
Exposure class	XC4/XS3/XD3/XF4/XA1	SS 137003:2015

Packaging

The product is supplied as standard in 25 kg sacks (item no. 52310) but can normally also be obtained in 1000 kg big sacks (item no. 5257310).

Storage

Use within 12 months from manufacture date on the package. Assumes dry storage in unopened packaging.

Finja cannot be held responsible for information other than that given in Technical data being correct. Conditions that are outside Finja's responsibility can be e.g. handling, treatment, working methods, possible reactions with other materials and local conditions at the storage or workplace. For current information always refer to www.finja.se

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