Standard

Bemix Standard is a pumpable, expanding concrete that is used for underpouring and filling when strength needs to develop rapidly. Mainly used for underpouring for posts, machine foundations, bridges and rails. Applications include machine underpourings, bolt anchorages, bridge bearings and where the requirements for underpourings are high. It develops strength quickly. It is easily pumped and has a very flowing consistency, which is a must for good underpouring even with cavities and other narrow spaces.

Work description

Casting

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.

Casting:
The mix must be poured into the mould continuously and as quickly as possible. There must be no interruptions until casting is finished. The mix should only be poured into the mould from one side so as to avoid air pockets. Ensure that the mould does not leak. Where large areas are to be underpoured, the concrete should be pumped on site for the best result.

Reinforcement:
To avoid cracks etc. due to drying out, reinforcing steel is laid in the concrete in cases such as: with thick underpourings, when the underpouring is long such as with rail underpouring, when the underpouring goes outside the slab, with in-situ casting or where there is a risk of rapid drying out. The reinforcement is laid in the mould/formwork before casting with the recommended covering layer.

After treatment:
Concrete that needs to be removed is scraped off with a finishing trowel once it has hardened sufficiently. The work can be made easier by pushing a sheet of metal down onto the concrete to form a limitation and assist chiselling.

After-curing:
When after treatment is done protect free surfaces from drying out. Use a water mist or water or lay wet rags, sawdust or sand. Alternatively, protect with plastic sheeting. Keep damp for the whole first week. After formwork is removed, exposed surfaces can be protected with membrane insulation.

Removing formwork:
If there is a risk of drying out the formwork should remain in place for a week. Otherwise the formwork can be removed the day after casting.

Jointing

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 25 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.

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local conditions at the storage or workplace. For current information always refer to www.finja.se**

Installation:
Mix according to the directions on the product sheet. With vertical holes, the concrete is held down in the hole with the aid of a funnel, for example. With horizontal holes use Bemix concrete injector. 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 treatment:
The support can be dismantled the day after casting. The top surface of the concrete is kept damp with wet rags or similar for at least five days. No load must be applied until the concrete has developed sufficient strength. With repairs the work should be performed according to EN 1504-10.

Technical data

Technical information for P marking		
Property	Declared value	Method
General		
Consumption	25 kg gives about 12.5 litres of mix	
Binder	Cement CEM I 52,5 R	
Stone max		
Layer thickness	Unreinforced 20–70 mm	
Chloride content	< 0,1 %	SP 0433
Max water addition	3,5 litres/25 kg	
WCR with max water addition	< 0,35	
Fresh mortar		
Consistency after 5 min	≥ 350 mm	SP-method 1651
Water separation	0	SS-EN 445
Fill properties	≤ 50 st 20–200 mm²	SP 1614
	None> 200 mm²	
Setting time	5–6 hours	SS 137226
Shrinkage	≤ 2 ppt	SS 137215
Air content	> 1 %	EN 1015-7
Volume increase	0–4 %	SS-EN 445
Cured mortar		
Frost resistance 56 cycles, flaking	Good	SS 13 72 44 IA
Compressive strength at 20 °C		
After 24 hours	> 40 MPa	EN 196-1
After 7 days	> 60 MPa	EN 196-1
After 28 days	> 80 MPa	EN 196-1
Exposure class	XC4/XS3/XD3/XF4/XA1	SS 137003:2015

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Packaging

The product is supplied as standard in 25 kg sacks (item no. 522200) but can normally also be obtained in 1000 kg big sacks (item no. 52570360).

Storage

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

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