# UNDERPINNING

## **S3**

Bemix S3 is a pumpable and fiber-reinforced expanding mortar for underpinning. Suitable for underpinning with smaller sections of open surfaces. The fibers have a cohesive effect on the fresh mortar which is also advantageous in for example, underwater casting. Very good pumpability and frost resistance. The product does not contain anti-detergent.

### Work description

#### Preparation:

The concrete substrate must be clean and free of dust, damaged concrete, grease or other contaminants that may impair adhesion. Substrate with a roughened and raw surface with closely spaced irregularities provide better adhesion. Clean the substrate carefully and if possible pre-water 24 hours before casting. Remove free water just before casting.

#### Mixing:

A rapid mixer, automatic mixer or flat mixer should be used. A mixer attachment or paint mixer works well for smaller quantities. Note! To good as good a running consistency as possible the temperature of the mix should be approximately 20°C. Compensate cold dry material with warm water.

#### Pumping:

Bemix S3 can be pumped with a Bemix pump. Always start pumping with a slurry, a loose mix of cement and water.

#### Casting:

The mixture must be used within 20 minutes after mixing. Fill from one side. Avoid trapping air pockets. Mix and pour at an even pace.

#### After treatment:

Free and unprotected surfaces are protected immediately after casting so that shrinkage and dehydration cracks do not occur. After casting, the surface can be moisture-cured with a thin, light mist of water, but that cannot mechanically damage the mortar. At air temperatures above 5°C, curing may take place with remaining form, covering or supply of water and may last the entire first week. As soon as the surface hardens, it can be watered and covered.

#### Technical data

General		
Property	Value	Method
Consumption	25 kg gives about 12.5 litres of mix	
Binder	Cement CEMII/A-V 52,5N	
Stone max	4 mm	
Rec.cast thickness non-reinforced	20-150 mm	
Max water addition	3.4 litres / 25 kg	
Rec.Lowest application temperature	≥ +5°C (Weather and wind must always be taken into account)	
Rec.Highest application temperature	< +30°C (Weather and wind must always be taken into account)	
Fresh mortar		

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

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

Property	Value	Method
Consistency after 5 min	≥ 350 mm	SP 1651
Usable time at 20°C	Approx 30 min	
Begins to set after	Approx2 h	
Expansion	Approx 0,5 %	
Cured mortar		
Property	Value	Method
Compressive strength at 20 °C		
After 24 hours	>20 MPa	EN 12190
After 28 days	>60 MPa	EN 12190
Watertight	Yes	SS 137003:2015
Shrinkage (%)	<2%	SS-EN12390
Frost resistance, 56 cycles, flaking	Very god	SS 13 72 44:2005 1 A
Exposure class	XC4/XS3/XD3/XF4/XA1	SS 137003:2015

## **Packaging**

The product is supplied as standard in 25 kg sacks but can normally also be obtained in 1000 kg big sacks.

## **Storage**

Use with in 12 months of the date of manufacture given on the pack. Store in a dry place.

