

Köldbruk

Bemix Köldbruk is a expanding mortar for underpinning in minus degrees or when rapid formwork removal is required. Cures in minus degrees. ATTENTION! Must not be pumped.

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 surface water immediately before casting. Do not water when casting in minus degrees. At freezing temperatures, the surface must be defrosted, and ice and melt water removed.

Mixing:

Bemix Köldbruk is ready mixed. Only water is added for casting. A rapid mixer or flat mixer can be used, or a mixer attachment, paint mixer or similar. Small batches and rapid mixing are recommended.

Casting:

For casting the mix should have a temperature of 20 °C. This is to prevent the mix from hardening too quickly. For example, if the dry cement has a temperature of -10°C the water added should have a temperature of 40 °C. To keep the mix workable for longer, hot water should be used whatever the ambient temperature. The mix will cure without heating even at temperatures down to -10°C. The mixture must be used within 20 minutes after mixing. The mix is poured in 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. At air temperatures below 5°C, curing may take place by remaining form or covering without water addition and may last the entire first week. Watering should not be done when casting in minus degrees.

Winter application:

Bemix Köldbruk hardens and cures without heating even if the temperature of the mix itself drops below 0 °C.

Technical data

General		
Property	Value	Method
Consumption	25 kg gives approx 12.5 litres of concrete mix	
Binder	Cement CEMII/A-V52,5N, CEM I 52,5 R	
Stone max	4 mm	
Recommended cast thickness	20–150 mm	
Max water quantity	3.75 litres / 25 kg	
Rec.Lowest application temperature	-10°C(Weather and wind must always be taken into account)	
Fresh mortar		
Property	Value	Method

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Usable time at 20°C	Approx 30 min	
Begins to set after	Approx 45 min	
Cured mortar		
Property	Value	Method
Compressive strength at 20 °C		
After 24 hours	> 15 MPa	EN 12190
After 28 days	> 40 MPa	EN 12190
Compressive strength at -10 °C		
After 3 days	> 10 MPa	EN 12190
After 28 days	> 25 MPa	EN 12190
Watertight	Yes	SS 137003:2015
Shrinkage (‰)	<2‰	SS-EN12390
Frost resistance, 56 cycles, flaking	Very good (<0.10 kg/m ²)	SS 137244:2019 1B
Exposure class	XC4/XS2/XD2/XF3/XA1	SS 137003:2015

Packaging

The product is supplied as standard in 25 kg sacks.

Storage

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

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