

Betocem Fibre

FIBRE-REINFORCED TECHNICAL MORTAR WITH COMPENSATED SHRINKAGE AND LOW ELASTIC MODULUS FOR REPAIRING DEGRADED CONCRETE.



TECHNICAL DATA SHEET

DESCRIPTION

BETOCEM FIBRE is a technical mortar composed of high-resistance hydraulic binders, selected aggregates, high-cohesion fibres, synthetic resins and special additives. Its thixotropic consistency provides excellent workability and strong adhesion to concrete.

FIELDS OF APPLICATION

Suitable for reconstructing concrete cover over reinforcement, beam and pillar edges, balcony risers, degraded steps and parapets, and for smoothing walls and repairing gravel nests. It can be applied vertically in high thicknesses without slipping.

SUBSTRATE PREPARATION

Remove all loose and inconsistent concrete and clean oxidised reinforcement. Mechanically roughen the surfaces, remove dust and contamination, and thoroughly wet the substrate with water under pressure before application.

APPLICATION

Mix approximately 4 litres of clean water with one 25 kg barrel of powder until a homogeneous mortar is obtained. Apply 10-40 mm per coat. The pot life is approximately 60 minutes and the waiting time between coats must not exceed 4 hours.

BETOCCEM FIBRE has a low elastic modulus, compensated shrinkage and good resistance to water, carbonation, nitrates, sulphates, chlorides and freeze-thaw cycles. It is designed for durable structural and non-structural concrete repairs classified R3 PCC according to EN 1504-3.

PERFORMANCE BENEFITS

- R3 PCC classification according to EN 1504-3.
- Compensated shrinkage and low elastic modulus.
- Strong adhesion to concrete and excellent workability.
- Resistant to water, carbonation and chemical aggression.
- Suitable for 10-40 mm thickness per coat, including vertical work.

CONSUMPTION

Approximately 19 kg/m² per mm of thickness, as reported in the supplied technical data sheet.

RECOMMENDATIONS

- Apply only to sound, roughened and thoroughly wetted concrete.
- Use the mixed mortar within approximately 60 minutes.
- Do not exceed 40 mm thickness per coat or 4 hours between coats.

PACKAGING

BETOCCEM FIBRE is supplied in one 25 kg barrel.

SPECIFICATIONS

Fibre-reinforced technical mortar with compensated shrinkage, resistance to atmospheric agents and carbonation, and low elastic modulus, BETOCCEM FIBRE type by Colmef Srl. Apply at a maximum thickness of 40 mm per coat.

TEST CONDITIONS

Tests performed at 23 °C and 50% relative humidity in the absence of air ventilation.

TECHNICAL DATA

Property	Unit	Value
Classification according to EN 1504-3	-	R3 PCC
Appearance	-	Grey powder
Maximum granulometry	mm	2.5
Apparent specific weight	g/cm3	1.24
pH of mix	-	≥ 12
Application temperature	°C	+5 to +35
Mixing ratio	-	Approx. 4 L water / 25 kg powder
Specific weight of mix	g/cm3	2.0
Initial setting	minutes	Approx. 90
Final setting	hours	Approx. 3
Spreading of mix	%	75
Pot life of mix	minutes	Approx. 60
Waiting time between coats	hours	Maximum 4
Thickness applicable per coat	mm	10-40
Consumption	kg/m2/mm	19
Packaging	kg	25 kg barrel

FINAL PERFORMANCE

Age / property	Compression	Flexure
After 24 hours	≥ 8.0 MPa	≥ 2.0 MPa
After 7 days	≥ 30.0 MPa	≥ 5.5 MPa
After 28 days	≥ 40.0 MPa	≥ 7.0 MPa
Compressive elastic modulus at 28 days	≥ 20 GPa	-
Adhesion to concrete at 28 days	≥ 2.0 MPa	-

DATA REPORTED FROM THE SUPPLIED BETOCEM FIBRE TECHNICAL DATA SHEET.

The information in this bulletin is based on our best experience. We cannot be held liable for product misuse. Anyone intending to use this product should assess whether it is suitable for the intended application and perform preliminary tests. Always refer to the latest updated technical data sheet and Safety Data Sheet available from Colmef.

FOR MORE INFORMATION OR PARTICULAR USES, CONTACT THE COLMEF TECHNICAL SUPPORT DEPARTMENT.

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