



HYDROBLOC-FC 300

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High Performance Shotcrete & Structural Repair Mortar

Product Description:

HYDROBLOC-FC 300 is a pre-blended, fiber-reinforced cementitious repair mortar designed for structural concrete repair and shotcrete applications. Engineered for high-build repairs up to 300 mm, it delivers excellent cohesion, low rebound, shrinkage compensation, and superior durability for vertical, overhead, and deep-section repairs.

Key Features & Benefits:

- High-build application up to 300 mm
- Excellent pumpability & spray performance
- Low rebound and reduced material wastage
- Compatible with alkali-free accelerators
- Shrinkage compensated formulation
- Dense, low permeability matrix
- Fiber reinforced for crack control
- Chloride-free and corrosion resistant

Areas Of Application:

- Structural concrete repairs
- Shotcrete applications (wet-mix & dry-mix)
- Retaining walls & basements
- Tunnels & underground structures
- Marine structures & infrastructure repairs
- Honeycomb and spalled concrete restoration

Surface Preparation:

- Remove all loose and unsound concrete
- Achieve rough surface profile (CSP 5–7)
- Ensure substrate is clean and free from oil, dust, and laitance
- Pre-wet substrate to SSD (Saturated Surface Dry) condition
- Remove standing water before application

Mixing Instructions:

- Add 3.25 – 4.0 liters clean water per 25 kg bag
- Pour measured water into mixer first
- Slowly add Hydrobloc-FC 300 while mixing
- Mix for 3–5 minutes until homogeneous
- Allow mix to rest for 1 minute, then remix briefly
- Use within working time



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Application Guidelines:

Hand application:

- Apply bonding slurry if required
- Place mortar using trowel and compact thoroughly
- Apply in layers for thicknesses above 75 mm
- Finish surface as required

Shotcrete application:

- Apply using wet-mix or dry-mix shotcrete equipment
- Maintain proper nozzle angle and spray distance
- Apply in uniform passes to avoid sagging
- Remove rebound material during application

Coverage/ Consumption:

Coverage per 25 kg bag : $\sim 0.011 - 0.012 \text{ m}^3$

Consumption : $\sim 2.0 - 2.2 \text{ kg/m}^2/\text{mm}$

Curing & Protection:

- Begin curing immediately after initial set
- Use water curing or curing compounds
- Recommended curing duration: 3–7 days
- Protect from rapid drying, wind, and direct sunlight

Packaging:

HYDROBLOC-FC300 comes in 25 kg moisture-resistant bags.

Storage & Shelf life:

Store for up to 9-12 months in unopened packaging. Keep in cool, dry conditions away from frost and moisture and direct sunlight.

Health & Safety:

Contains cement and is alkaline in nature. Avoid skin and eye contact. Use gloves, goggles, and protective clothing. Ensure adequate ventilation during mixing and application.

Refer to the MSDS for full handling and disposal information.



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Technical Data:

Property	Value
Appearance	Grey dry powder
Wet Density	~2200–2300 kg/m ³
Water Demand	13–16% by weight
Workability Time	45–90 min @ 25°C
Initial Set	2–4 hours
Final Set	4–6 hours
Compressive Strength (1 Day)	≥ 20 MPa
Compressive Strength (7 Days) ≥ 40 MPa	≥ 40 MPa
Compressive Strength (28 Days)	50–65 MPa
Flexural Strength	≥ 7 MPa
Bond Strength (EN 1542)	≥ 2.0 MPa
Modulus of Elasticity	~20–25 GPa
Water Absorption	< 5%
Permeability	Very low
Shrinkage	Compensated