



HYDROBLOC-RM40

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High-Performance Repair Mortar for Structural Concrete Restoration (5-40 mm)

Product Description:

HYDROBLOC-RM40 is a high-quality, polymer-modified, cementitious repair mortar formulated for the restoration of concrete surfaces. Engineered for thicknesses ranging from 5 to 40 mm in a single layer, it offers excellent workability, strong adhesion, and high mechanical strength. It is ideal for both vertical and overhead applications, making it a reliable solution for structural repair and surface restoration of concrete elements.

Key Features & Benefits:

- Ready-to-use, just add water
- Excellent workability, even in overhead applications
- High bond strength to concrete and reinforcement
- Non-sag application for vertical surfaces
- Shrinkage compensated
- Sulfate-resistant and low permeability
- Compatible with cathodic protection systems
- Chloride-free and non-corrosive to steel

Application Areas:

HYDROBLOC-RM40 is suitable for use in:

- Repair of damaged or honeycombed concrete
- Restoration of vertical and overhead concrete elements
- Concrete structural components (columns, beams, soffits, walls)
- Precast and cast-in-situ concrete repairs
- Infrastructure and marine structures exposed to environmental stress
- Patching of spalled concrete due to reinforcement corrosion

Surface Preparation:

- Remove damaged, loose, or weak concrete to expose sound substrate.
- Expose reinforcement where necessary and clean to remove rust and scale.
- Pre-wet surface until saturated surface-dry (SSD) before applying mortar.

Mixing Instructions:

Mix 25 kg of HYDROBLOC-RM40 with 4.25–4.50 liters of clean water using a mechanical mixer at low speed for 3–5 minutes until a lump-free, homogenous consistency is achieved.



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Application Guidelines:

- Apply by trowel, hand, or spray in layers of 5 to 40 mm.
- Compact firmly onto the substrate to ensure proper bonding.
- For thicker repairs, multiple layers can be applied after allowing the previous layer to set.

Curing & Protection:

Protect the freshly applied surface from wind, sunlight, and rapid drying. Use curing compound or moist curing methods for at least 48 hours.

Packaging:

25 kg moisture-resistant bags

Storage & Shelf Life:

Store in original sealed packaging in a cool, dry, and covered area. Protect from moisture and frost. Shelf life is 12 months under proper storage conditions.

Health & Safety:

Wear appropriate PPE: gloves, safety goggles, and a dust mask. Avoid contact with skin and eyes. [Refer to the Safety Data Sheet \(SDS\) for detailed health and safety instructions.](#)

Technical Data:

Property	Value
Appearance	Grey Powder
Maximum grain size	1.5 mm
Mixing ratio (water)	4.25–4.50 L per 25 kg
Working time (at +20°C)	Approx. 30–40 minutes
Application temperature	+5°C to +35°C
Layer thickness (per application)	5 mm to 40 mm
Compressive strength (28 days)	≥ 50 MPa
Flexural strength (28 days)	≥ 8 MPa
Bond strength to concrete (28 days)	≥ 2.5 MPa
Modulus of elasticity	Approx. 20,000 MPa
Capillary water absorption	< 0.1 kg/m ² ·h ^{0.5}
Bulk density (fresh mortar)	Approx. 2.1 kg/L
Consumption	Approx. 2.1 kg/m ² per mm thickness
Shelf life	12 months (in original sealed packaging)

Disclaimer: The technical data and recommendations contained in this sheet are based on laboratory tests and practical experience. However, as conditions of use are beyond our control, no warranty is expressed or implied. Suitability for specific applications should be verified by the user through trial and consultation with our technical team.