



# Technical Data Sheet

## BC Repair FC

### High-Quality, Water-Resistant Smoothing & Crack Repair Mortar

#### 1). Product Description

BC Repair FC is a single-component, polymer-modified, water-resistant fine repair mortar formulated from high-quality Portland cement, precisely graded limestone fillers, and special performance additives. It provides a smooth, durable finish for concrete surfaces and is ideal for fine crack filling and surface levelling prior to the application of coatings, paints, or waterproofing systems.

#### 2). Features & Benefits

- Excellent adhesion to concrete and masonry substrates.
- Can be applied on both dry and damp surfaces.
- Smooth and workable consistency for easy trowelling.
- Water-resistant — ideal for humid and exterior conditions.
- Resistant to UV radiation and rain.
- Non-shrink formulation ensures durable crack repair.
- Suitable for both vertical and horizontal surfaces.
- Compatible with cementitious coatings and paints.
- Environmentally safe — contains no chlorides.

#### 3). Uses

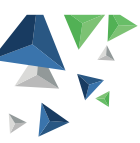
- Filling cracks, blow holes, and surface imperfections up to 4 mm width.
- Levelling uneven concrete or masonry surfaces.
- Finishing coat before application of waterproofing membranes or protective coatings.
- Fine smoothing of repaired or new concrete surfaces.
- Ideal for both interior and exterior wall and ceiling applications.



#### 4). Technical Data

Property	Test Method / Standard	Result / Typical Value
Appearance	-	Grey, fine powder
Binder Type	ASTM C150	Portland Cement
Filler Type	-	Crushed limestone, max. grain size 0.3 mm
Density (mixed)	ASTM C138	~1.67 kg/L
Water / Powder Ratio	-	0.4 L/kg
Workability Time	-	Approx. 3 hours at 25°C
Initial Setting Time	ASTM C191	60 – 90 minutes
Final Setting Time	ASTM C191	2 – 3 hours
Adhesion Strength	ASTM C1583	≥ 1.0 N/mm <sup>2</sup>
Compressive Strength	ASTM C109	≥ 15 MPa at 28 days
Flexural Strength	ASTM C348	≥ 3.0 MPa at 28 days
Water Absorption	ASTM C140	< 5%
UV Resistance	Internal Test	No discoloration or cracking
Application Temperature	-	+5°C to +40°C





## 5). Surface Preparation

- The substrate must be sound, clean, and free from dust, loose particles, oil, grease, laitance, or any contaminant that may impair adhesion.
- Remove all loose or weak material by wire brushing, sanding, or mechanical means.
- Damp the surface with clean water but ensure no standing water before application.

### Mixing

1. Pour the measured amount of clean water (approx. 0.4 L/kg) into a clean mixing container.
2. Gradually add BC Repair FC powder while continuously mixing with a slow-speed drill (400–500 rpm) fitted with a suitable paddle.
3. Mix for 3–5 minutes until a smooth, lump-free, uniform paste is obtained.
4. Allow to stand for 10–15 minutes, then remix before application.
5. Use the mixed material within 3 hours.

## 6). Application Guidelines

### As a Crack Filler:

- Apply the mixed mortar into the cracks using a spatula, putty knife, or trowel.
- Press firmly to ensure full contact and compaction within the crack.
- Smoothen the surface using a damp sponge or trowel.

### As a Smoothing / Levelling Mortar:

- Apply a thin coat with a steel trowel on the prepared surface.
- For best results, apply in layers of 1–3 mm thickness per coat.
- Avoid applying over surfaces with active movement or structural cracks.

### Curing:

- Keep the repaired area moist for at least 2–3 days after application.
- In hot or windy conditions, cover the surface with damp hessian or use a curing compound.

## 7). Consumption

Application	Approximate Coverage
Fine Smoothing (1 mm thick)	1.6 m <sup>2</sup> /kg
Crack Filling	Depending on crack depth and width

*(Coverage may vary depending on substrate roughness and porosity.)*



## 8). Packaging

- 20 kg bags

## 9). Storage & Shelf Life

- Store in a dry, shaded area at temperatures between +5°C and +35°C.
- Protect from direct sunlight and moisture.
- Shelf life is 12 months from the date of manufacture in unopened, original packaging.

## 10). Health & Safety

- Contains cement; avoid contact with skin and eyes.
- Use gloves and safety glasses during handling.
- In case of contact, rinse immediately with plenty of water and seek medical advice.
- Refer to the Safety Data Sheet (SDS) for detailed information.

### DISCLAIMER

The data presented in this sheet are based on laboratory testing and practical experience. Variations in substrate, application method, and environmental conditions may impact performance. Users are advised to carry out tests under their own conditions. Building Chemistry Industry's responsibility is limited to the product replacement in cases of proven manufacturing defect.

