

# Technical Data Sheet

## BC Block Mortar

### Thin-Bed Adhesive for Autoclaved Aerated Concrete (AAC) Blocks & Panels

#### 1). Product Description

BC Block Mortar is a high-performance, pre-blended hydraulic adhesive for AAC blocks, panels, and other lightweight masonry units. Composed of cement, graded aggregates, bonding agents, and special polymers, it produces a thixotropic, water-resistant mortar with excellent open time, workability, and mechanical strength.

It is supplied in pre-weighed bags, requiring only clean water on-site, ensuring thin-bed, gap-free application while conserving the thermal performance of AAC walls.

#### 2). Features & Benefits

- Pre-blended for consistent quality.
- Easy on-site preparation with only water.
- Extended open time and 2-hour pot life.
- Thin-bed application, 3–5 mm.
- Non-sag for vertical or horizontal application.
- High adhesion and mechanical strength.
- Water-resistant; suitable for internal and external applications.
- Gap-less application conserves thermal insulation.

#### 3). Typical Uses

- Fixing AAC blocks and panels internally and externally.
- Fixing lightweight aerated blocks and panels.
- Thin-bed masonry applications in walls, partitions, or infills.



#### 4). Technical Properties

Property	Value	Test Method
Color	White or Grey	Visual
Fresh wet density (mixed)	1.75 ± 0.1 g/cm <sup>3</sup>	–
Open time (3 mm thickness)	≥ 15 min	ASTM C230
Pot life	2 hr.	–
Compressive strength (28 days)	≥ 5.2 MPa	ASTM C109-109M-02
Water retention	≥ 90%	ASTM C1506
Air content	≤ 20%	ASTM C91
Application thickness	3–5 mm	–
Coverage	~6–8 m <sup>2</sup> per 25 kg bag @ 3 mm	–
Application temperature	+5°C to +35°C	–
Curing	Walkable 24–48 h, full strength 28 days	–

#### 5). Surface Preparation

- Substrates must be sound, clean, and free from loose material, dust, grease, laitance, and curing compounds.
- Wet AAC surfaces with clean potable water, leaving them damp, not saturated, before applying mortar.
- Remove excess water before applying BC Block Mortar.



## 6). Mixing Instructions

- 25 kg bag: Add 6.25–7 liters of clean water in a clean mixing container.
- Gradually add powder to water while mixing with a mechanical mixer or low-speed drill (400–600 rpm).
- Mix for 2–3 minutes until uniform and lump-free.
- Allow mortar to rest for 5–10 minutes, then briefly remix without adding water.
- Manual mixing possible for small quantities, maintaining proper powder-to-water ratio.

⚠️ Avoid adding extra water; this reduces bond strength.

## 7). Application Guidelines

1. Neutralize surface suction by dampening AAC blocks.
2. Align and fix first layer of blocks properly.
3. Apply mortar with a trowel at uniform thickness (3–5 mm).
4. Maintain thin-bed for thermal continuity.
5. Leave a 2 cm expansion gap under slabs or beams; fill with compressible material.
6. For floors with potential moisture, apply a damp-proof course first.
7. Do not spread more adhesive than can be covered within open time.

## 8). Cleaning & Maintenance

- Clean tools immediately with water.
- Hardened mortar removed mechanically.

## 9). Packaging

- 25 kg pre-weighed bags.





## 10). Coverage

- Approximate consumption: 1.3–1.5 Kg/m<sup>2</sup> per 1 mm thickness.
- Actual coverage depends on block size, surface condition, and application method.

## 11). Shelf Life & Storage

- 12 months in dry conditions.
- Store at +5°C to +30°C, protected from moisture.

## 12). Limitations & Safety

- Avoid rapid water evaporation; keep mortar damp for 48 hours.
- Do not apply below +5°C or in direct sunlight.
- Wear protective gloves, goggles, and masks; highly alkaline product.
- Non-flammable.
- For further details, refer to the Material Safety Data Sheet (SDS).

### 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.

