



Technical Data Sheet

BC Poxy Mortar 5000

High-Strength Three-Component Epoxy Mortar System

1). Description

BC Poxy Mortar 5000 is a high-performance, solvent-free, three-component epoxy mortar system consisting of epoxy resin (Part A), hardener (Part B), and graded silica/quartz filler (Part C). The system is designed for heavy-duty floor repair, resurfacing, and rebuilding of damaged concrete.

It provides a dense, tough, non-absorbent, chemical-resistant surface that is far superior to normal concrete. BC Poxy Mortar 5000 can be applied at 5 mm thickness or more.

2). Uses

Suitable for heavy-duty industrial environments such as:

- Warehouses & storage facilities
- Food processing plants
- Chemical & metal treatment plants
- Service stations & workshops
- Machinery maintenance areas
- Garages, car repair facilities
- Factories & production floors
- Pile head repairs and structural rehabilitation

3). Features & Advantages

- High compressive, tensile & flexural strength
- Excellent chemical resistance
- Solvent-free & VOC compliant
- Fast curing; walk-on time from 8 hours
- Non-dusting, non-absorbent surface
- Excellent adhesion to concrete substrates
- Can be applied thick (≥ 5 mm)



4). Technical Properties

Mechanical Properties (ASTM test data from laboratory conditions)

Property	Test Method	Result
Compressive Strength @ 24°C	ASTM C579	1 day: 70 MPa
		3 days: 78 MPa
		28 days: 82 MPa
Tensile Strength	ASTM C307	9 MPa
Flexural Strength	ASTM C580	18 MPa
Chemical Resistance	Various	Excellent to acids, alkalis, fuels (see detailed notes below)
Pot Life	–	16°C: 50 min
		24°C: 30 min
Working Time	–	16°C: 2 hrs
		24°C: 1.5 hrs
Yield	–	~17 Liters per 33 kg set

Chemical Resistance Summary

Chemical	Concentration	Resistance
Citric Acid	10%	Excellent
Hydrochloric Acid	25%	Excellent
Sodium Hydroxide	50%	Excellent
Sulphuric Acid	–	Very Good
Phosphoric Acid	10%	Limited
Acetic Acid	5%	Limited
Nitric Acid	10%	Not Resistant



5). Application Instructions

Surface Preparation

- Concrete must be sound, clean, and dry.
- Minimum concrete age: 28 days.
- Remove oil, dust, paint, laitance, weak concrete.
- Prepare surface mechanically: shot blasting / scarifying / grinding.
- Produce a minimum 3 mm profile and expose aggregate.
- Vacuum clean to remove all loose dust.
- Acid etching only if mechanical preparation is not possible (not preferred).

Priming

- Prime using BC Poxy Mortar 1000 LV at recommended coverage.
- Apply BC Poxy Mortar 5000 when primer becomes tacky.
- If primer cures completely, apply a fresh coat.

Mixing

- Mix Part A and Part B for 2 minutes.
- Slowly add Part C while mixing for 3–5 minutes until fully wetted.
- Use mechanical mixing only (pan mixer or slow-speed drill 300–500 rpm).
- Do not mix partial units unless ratio is strictly maintained.
- Immediately place mixed mortar.

Placement

- Fill routed cracks and joints first.
- Apply mortar using trowel, shovel, or screed box.
- Compact firmly and finish with steel trowel.
- For resurfacing, place 3 mm above final height and trowel finish.

6). Coverage / Yield

- 33 kg set yields approx. 17 liters of mixed mortar (depending on compaction & substrate profile).





7). Packaging

- 33 kg Set:
 - Part A (Resin): 4 kg
 - Part B (Hardener): 2 kg
 - Part C (Graded Aggregate): 27 kg

8). Storage & Shelf Life

- Shelf Life: 24 months in original unopened containers.
- Store in cool, dry, shaded area between 5°C and 35°C.
- Keep away from moisture, heat sources, and ignition.

9). Health & Safety

- Wear gloves, goggles, and protective clothing.
- Avoid skin and eye contact.
- Use with proper ventilation.
- Clean tools with xylene/toluene before material cures.
- Refer to the latest SDS for full safety instructions.

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.

