



Technical Data Sheet

BC PU MORTAR

Three-Component Heavy-Duty Polyurethane Mortar Flooring System

1. Product Description

BC PU Mortar is a three-component, heavy-duty polyurethane mortar flooring system formulated for industrial environments requiring excellent chemical resistance, mechanical durability, and thermal shock stability.

The system consists of Resin (A), Hardener (B) and Special Aggregates (C) and is applied at thicknesses 4 mm and above using a steel trowel.

BC PU Mortar is suitable for food industries, processing facilities, cold rooms, and areas exposed to aggressive chemicals or temperature variations.

2. Uses

BC PU Mortar is recommended for:

- Food & beverage industries (meat, poultry, fish, dairy, fruit).
- Commercial kitchens & production plants.
- Cold rooms, freezers, refrigerated storage areas.
- Factories & industrial floors with heavy traffic.
- Chemical processing zones.
- Floors exposed to constant washing, hot water, or thermal shock.

3. Features & Benefits

- Slip resistant under wet/dry conditions.
- Excellent abrasion and impact resistance.
- Seamless, hygienic, non-dusting and easy to clean.
- Will not support bacterial growth.
- Withstands temperatures from -40°C to $+120^{\circ}\text{C}$.
- Superior resistance to fats, oils, solvents and chemicals.
- Long service life with low maintenance.
- Solvent-free and environmentally safe.



4. Technical Data (Typical Values After 28 Days @ 20°C)

Property	Test Method	Value
Density	BS 6319 Part 5	2.095 kg/m ³
Compressive Strength	BS 6319 Part 2	58 N/mm ²
Tensile Strength	—	7 N/mm ²
Flexural Strength	ISO 178	15 N/mm ²
Dynamic Elastic Modulus	ASTM C597	20 kN/mm ²
Bond Strength	BS 6319 Part 4	Concrete failure
Thermal Conductivity	—	1.1 W/m°C
Water Absorption	—	0 ml

Chemical Resistance

Chemical Category	Performance
Fats, oils, sugars	Excellent
Mineral oils	Excellent
Kerosene, gasoline, brake fluids	Excellent
Dilute acids & alkalis	Excellent
Most organic solvents	Excellent

5. Surface Preparation

- Substrate must be structurally sound and at least:
 - 7 days old for concrete
 - 3 days old for polymer-modified screeds
- Surface must be free from dust, oils, grease, curing compounds or loose particles.
- Prepare by grinding or vacuum shot-blasting.
- Do not use acid etching.



6. Priming

Prime the prepared substrate with:

BC Tec Sealer 201

(single-component polyurethane primer, solvent-free, low viscosity).

Apply BC PU Mortar while the primer is in its tacky condition.

7. Mixing

1. Add Component B (hardener) into Component A (resin).
2. Mix mechanically for 1–2 minutes.
3. Slowly add Component C (aggregates) while mixing.
4. Continue mixing for 3–5 minutes until homogeneous.
5. Do not add water or solvents.
6. Apply immediately after mixing.

8. Application

- Fill cracks or joints with mixed mortar before main application.
- Discharge mixed material onto floor.
- Spread to slightly above the final thickness using trowel or shovel.
- Compact and finish with a hand trowel or power trowel.
- Ensure correct thickness and uniform finish.

9. Cleaning

Clean tools immediately using:

- CEMTEC Solvent
- Xylene
- Toluene
- MEK

Do not allow the mortar to harden on equipment.

10. Coverage

A 27 kg kit covers approximately:

- 2.6 m² at 5 mm thickness

Coverage may vary based on substrate condition and application technique.



11. Packing

- Component A (Resin): 2.32 kg
- Component B (Hardener): 1.30 kg
- Component C (Aggregates): 23.38 kg
- Total: 27 kg

12. Shelf Life & Storage

- Shelf life: 12 months in unopened original packaging.
- Store below 35°C, in dry and shaded conditions.
- Protect from frost, moisture and direct sunlight.

13. Colors

Available in:

- Grey
- Maroon
- Beige

14. Health & Safety

- Avoid contact with skin and eyes.
- In case of contact, rinse immediately with clean water.
- Use gloves, safety goggles, and protective clothing during application.
- Refer to the product Material Safety Data Sheet (MSDS) for detailed safety instruction

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.

