



Technical Data Sheet

BC Novolac Mortar

Epoxy Novolac Corrosion Resistant Render

1). Description

BC Novolac Mortar is a high-performance, 100% solids, trowel-applied epoxy novolac mortar designed to protect concrete and masonry surfaces in highly aggressive chemical and thermal environments. Formulated from advanced epoxy novolac resins and specialty hardeners, BC Novolac Mortar provides exceptional resistance to concentrated acids, alkalis, and solvents, while maintaining excellent mechanical strength.

2). Features And Benefits

- Outstanding Chemical Resistance
Resistant to a broad range of aggressive chemicals, including concentrated sulphuric, hydrochloric, and phosphoric acids, alkalis, oils, fats, and solvents.
- High Temperature Resistance-Withstands continuous service up to 120°C, depending on exposure conditions.
- Excellent Mechanical Strength -High compressive, tensile, and bond strength ensures long-term performance under mechanical and chemical attack.
- 100% Solids System- Solvent-free formulation eliminates VOC emissions and shrinkage.
- Rapid and Low-Temperature -Cures quickly at temperatures as low as 0°C, reducing shutdown periods.

3). Recommended Uses

BC Novolac Mortar is ideal as a chemical- and corrosion-resistant render or topping to protect concrete or masonry in:

- Secondary containment linings
- Acid and fertilizer plants, Steel mills
- Refineries and petrochemical plants, Water treatment and sewerage facilities
- Meat, poultry, and dairy processing areas





4). Typical Physical Properties

Property	Typical Value
Density	1.7 – 1.8 g/cm ³
Compressive Strength	100 MPa
Adhesion to Concrete (ASTM C1583)	> 1.5 MPa (concrete failure)
Flexural Strength	35 MPa
Maximum Service Temperature	120°C
Coefficient of Thermal Expansion	40 × 10 ⁻⁶ /°C
Color	Light grey (other colors available on request)

5). Instructions For Use

1. Temperature of Working Area

Maintain working conditions between 5°C and 25°C. Avoid application in direct sunlight or on surfaces with rising temperature to prevent blistering due to entrapped air or moisture expansion.

2. Surface Preparation

All substrates must be clean, dry, and structurally sound. Remove oil, grease, dust, laitance, and other contaminants by abrasive blasting or high-pressure water jetting.

- New Concrete: Minimum compressive strength 20 MPa, 28 days cured, surface moisture <10%.





3. Mixing

a) Equipment

Use a mechanical mixer (resinous cement mixer, mortar mixer, or heavy-duty drill with paddle).

b) Mixing Ratios (by Volume)

Component	Ratio
BC Novolac Liquid Resin	2 parts
BC Novolac Hardener	1 part
BC Novolac Filler Powder	10 parts

c) Mixing Procedure

1. Pre-mix liquids separately before combining.
2. Mix resin and hardener thoroughly for 1–2 minutes.
3. Gradually add powder with continuous mixing for 3–5 minutes until homogeneous.

d) Pot Life at 20°C

- BC Epoxy Primer: ~70 minutes
- BC Novolac Mortar: ~40 minutes

4. Installation

(i) Primer Application

Apply BC Epoxy Primer by brush or short-nap roller to achieve uniform coverage.

(ii) Mortar Application

Immediately place mixed mortar and spread with a steel trowel to the desired thickness (3–8 mm).

5. CURING

- Initial set: 6 hours @ 20°C
- Full cure: 3 days @ 20°C

6). Coverage (Theoretical)

BC Novolac Mortar	3 mm	5.3 kg/m ²
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7). Packaging

- BC Novolac Resin: 2.75 Kg
- BC Novolac Hardener: 1.5kg
- BC Novolac Filler: 16 kg bags

8). Storage & Shelf Life

Store components in original sealed containers in a cool, dry place (5°C–30°C).

Shelf life: 12 months minimum under proper storage conditions.

9). Safety Precautions

- Liquids: Wear chemical goggles, nitrile gloves, and protective clothing.
- Avoid skin or eye contact.
- Powder: Avoid inhaling dust. Use adequate ventilation or respiratory protection.
- For full details, consult the Safety Data Sheets (SDS) for each component.

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.

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