

Technical Data Sheet

BC Poxy FC 140 Screed

Three-Component Solvent-Free Epoxy Mortar for Concrete Protection

1. Product Description

BC Poxy FC 140 Screed is a high-performance, three-component system consisting of Epoxy Resin (Part A), Hardener (Part B), and Quartz Filler (Part C). The system exhibits excellent chemical, abrasion, and water resistance, making it ideal for the protection, repair, and rehabilitation of concrete substrates, including manholes, trenches, and industrial flooring.

2. Recommended Uses

- Rehabilitation and lining of manholes and trenches.
- Protection of industrial floors and concrete structures exposed to chemical attack.
- Areas requiring high mechanical and chemical resistance.
- Surfaces exposed to water and moisture.

3. Features & Benefits

- Chemical Resistance: Resistant to a wide range of industrial chemicals, acids, and alkalis.
- High Strength: Compressive strength approximately 55 MPa after full cure; 2–3 times stronger than normal concrete.
- Water Resistance: Impervious to water penetration once cured.
- Bond Strength: Bonds to nearly all substrates, dry or damp.
- Ease of Application: Designed for easy mixing and installation with mechanical mixers.



4. Technical Data (Typical Values)

| Property | Test Method | Value |
|----------------------|------------------------|---|
| Compressive Strength | ASTM C109 | 11,325 psi (~78 MPa) |
| Flexural Strength | ASTM C580 | 4,290 psi (~29.5 MPa) |
| Tensile Strength | ASTM C307 | 2,330 psi (~16 MPa) |
| Acid Resistance | 100-day immersion test | Pass |
| Density (mixed) | — | ~2.0 g/cm ³ |
| Pot Life | +25 °C | 30–40 minutes |
| Full Cure | +25 °C | 24 hours (handling), 7 days full strength |

5. Surface Preparation

- Concrete substrate must be sound, clean, and free of dust, oil, grease, curing agents, or loose particles.
- Mechanically remove weak or damaged concrete.
- Fill voids or blowholes with BC Poxy Repair 100 or suitable filler.
- Priming: Apply BC Poxy Primer 349 in a thin, uniform coat and allow it to become tacky before applying BC Poxy FC 140 Screed. Ensure full surface coverage.

6. Mixing Instructions

1. Mechanical Mixing: Use a slow-speed drill with a mixing paddle.
2. Mix Ratio:
 - Part A – Epoxy Resin: 3.9 kg
 - Part B – Hardener: 0.4 kg
 - Part C – Quartz Filler: 22.7 kg
3. Blend Parts A and B until homogeneous. Gradually add Part C and mix thoroughly to achieve a uniform mortar. Avoid prolonged over-mixing to prevent air entrainment.



7. Application

- Apply BC Poxy FC 140 Screed immediately over primed surfaces using trowel or screed tools.
- Spread evenly to desired thickness (recommended 0.37 mm per coat).
- Multiple layers may be applied if higher thickness is required; allow previous layer to cure sufficiently.
- Ensure continuous wet-on-wet contact with primer to achieve full adhesion.

8. Coverage

- Yield per 27 kg kit: ~13.5 liters.
- Coverage: ~0.37 mm thickness per liter.

9. Packaging

27 kg kit

- Part A – Epoxy Resin: 3.9 kg
- Part B – Hardener: 0.4 kg
- Part C – Quartz Filler: 22.7 kg

10. Storage & Shelf Life

- Store in dry, shaded areas between +10 °C and +30 °C.
- Shelf life: 12 months in original, sealed containers.
- Protect from frost and direct sunlight.

11. Health & Safety

- Avoid contact with skin and eyes; wear gloves and goggles.
- Ensure adequate ventilation during mixing and application.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Refer to the Safety Data Sheet (SDS) for complete 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.

