

Technical Data Sheet

BC Epoxy 250

Two Component, Solvent-Free, High Build Epoxy Protective Coating

DESCRIPTION

BC Epoxy 250 is a two-component, solvent-free, 100% solids, high-build epoxy coating designed for long-term protection of concrete, cementitious mortars, epoxy systems, and steel. It combines excellent mechanical strength, chemical resistance, and durability with potable water certification, making it suitable for both industrial and water-retaining structures.

USES

- Potable water tanks, reservoirs, and treatment plants
- Silos, storage tanks, sewage works
- Food, beverage, and pharmaceutical facilities
- Protective coating for structural concrete, mortars, and epoxy systems
- Anti-corrosion coating for structural steel
- Abrasion-resistant lining in industrial and agricultural plants

FEATURES & BENEFITS

- 100% solids – solvent-free, very low VOC
- Certified for potable water contact (non-toxic when cured)
- High chemical, abrasion, and mechanical resistance
- Impervious to liquids, hygienic and easy to clean
- High-build system ($\geq 400 \mu\text{m}$ DFT in 2 coats)
- Smooth, satin finish with easy cleanability
- Can be applied to damp (SSD) concrete
- Suitable for hot and tropical climates





PRODUCT DATA

Property	Value	Remarks
Composition	Epoxy resin with amine hardener	Two-component
Color	Grey (RAL 7032), Blue, White	Other colors on request
Packaging	Part A: 10.8 kg, Part B: 2.45 kg	13.25 kg set
Mixing Ratio	4: 1 (by weight, A: B)	Pre-measured kits
Density (mixed)	~1.37 kg/L @ +23°C	EN ISO 2811-1
Volume Solids	~100 %	Solvent-free
VOC Content	< 50 g/L	Very low emission
Shelf Life	12 months	Unopened containers
Storage Conditions	+5°C to +30°C, dry, sealed, no sunlight	In original packaging

TECHNICAL PERFORMANCE

Property	Value	Standard / Method
Shore D Hardness	~80	DIN 5305
Tensile Adhesion Strength	> 1.5 N/mm ² to concrete	ISO 4624
Abrasion Resistance (CS10)	~27 mg loss (1000 g / 1000 cycles)	ASTM D4060
Abrasion Resistance (CS17)	~70 mg loss (1000 g / 1000 cycles)	ASTM D4060



APPLICATION DATA

Parameter	Value / Recommendation
Consumption	~0.30 kg/m ² per coat (~0.20 mm DFT)
System Thickness	≥ 400 μm (2 coats)
Pot Life @ +30°C	~10–15 min
Overcoating Interval +30°C	6 h (min) – 1 d (max)
Full Cure @ +30°C	~5–7 days
Application Temperature	+10°C to +40°C
Relative Humidity	< 80 %

SUBSTRATE PREPARATION

- Concrete: ≥25 N/mm² compressive strength, pull-off ≥1.5 N/mm². Surface must be free of laitance, oils, grease, and contaminants. Prepare by abrasive blasting or grinding. Repair defects using suitable BCI repair mortars.
- Steel: Abrasive blast to Sa 2½ (ISO 8501-1). Apply coating immediately after blasting.

MIXING & APPLICATION

- Stir Part A, add full Part B, and mix mechanically (300–400 rpm) for 3–4 minutes until uniform.
- Transfer to a clean container and remix for 1 minute. Avoid excessive mixing and air entrapment.
- Apply evenly by brush, roller, or airless spray .



CLEANING

Clean tools and equipment immediately with BCI Thinner. Hardened or cured material can only be removed mechanically.

IMPORTANT NOTES

- Do not apply on substrates with rising moisture.
- Protect freshly applied coating from water, condensation, and humidity for at least 24 h.
- Cracks and joints must be assessed and treated correctly before application.

HEALTH & SAFETY

Refer to the latest BC Epoxy 250 Safety Data Sheet (SDS) for detailed guidance. Use protective gloves, goggles, and suitable respiratory protection. Ensure adequate ventilation during application

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.

