

Technical Data Sheet

BC Floor 4000 SL

High-Build, Self-Smoothing, Heavy-Duty Epoxy Resin Flooring System

1). Description

BC Floor 4000 SL is a two-component, solvent-free, high-build self-smoothing epoxy resin-based floor topping. It is formulated to provide a seamless, hard-wearing, chemical and abrasion-resistant surface with a high-gloss finish and superior durability.

Designed for heavy-duty industrial and commercial applications at thicknesses of 3.0–5.0 mm, it provides excellent mechanical strength, impact resistance, and long-term performance even under aggressive chemical and traffic exposure.

2). Uses

BC Floor 4000 SL is recommended for environments requiring a durable, high-performance, and hygienic epoxy floor, such as:

- Food and beverage processing areas
- Pharmaceutical and cleanroom facilities
- Garages, car parks, and loading bays
- Power plants and engineering workshops
- Chemical and process industries

3). Advantages

- Seamless, smooth, and hygienic finish
- Outstanding abrasion and impact resistance
- High chemical and mechanical resistance
- Low VOC and solvent-free formulation
- Excellent adhesion to concrete and epoxy primers
- Suitable for medium to heavy traffic loads



4). Technical Properties

Property	Test Method	Typical Value
Pot Life @ 25°C	–	~45 minutes
Compressive Strength (7 days)	ASTM C579	85 N/mm ²
Tensile Strength (7 days)	ASTM D638	22 N/mm ²
Flexural Strength	ASTM D790	35 N/mm ²
Abrasion Resistance (1000 cycles, CS10 wheel)	ASTM D4060	<35 mg loss
Hardness (Shore D)	ASTM D2240	82
Adhesion Strength	ASTM D4541	≥2.0 N/mm ² (failure in concrete)
Impact Resistance	ASTM D2794	No failure at 1.5 m
Slip Resistance	DIN 51130	R11–R13 (depending on finish)
Service Temperature	–	Continuous: +60°C / Short-term: +90°C
Chemical Resistance	–	Excellent resistance to acids, alkalis, oils, and cleaning chemicals etc.
Gloss Finish	ASTM D523	>90 GU @ 60°

5). Application Guidelines

5.1) Surface Preparation:

- Concrete must be sound, clean, and dry (<4% moisture).
- Remove dust, oil, laitance, and contaminants by mechanical grinding or shot blasting.
- Repair surface defects using epoxy repair mortar.





5.2) Priming:

- Apply BC Epoxy Primer 349 depending on substrate porosity.
- Ensure primer is tack-free before applying BC Floor 4000 SL.

5.3). Mixing:

- Pre-mix Part A (resin) and Part B (hardener) separately.
- Combine and mix with a slow-speed drill (300–400 rpm) for 2–3 minutes.
- For filled systems, add graded quartz filler (0.3–0.8 mm) as required.

5.4) Application:

- Pour mixed material onto the floor and spread evenly using a notched trowel or pin rake.
- Maintain ambient and substrate temperature between +10°C and +35°C during application.

5.5) Curing:

- Protect from dust, moisture, and foot traffic for 24 hours.
- Full mechanical and chemical cure in 7 days @ 25°C.


6). Packaging

Component	Description	Pack Size
Part A	Epoxy Resin + Pigment	24.34 kg
Part B	Hardener	2.66 kg
Set (Kit)	Pre-weighed system	27 kg

7). Coverage

Product	Application Thickness	Approx. Coverage
BC Floor 4000 SL	4 mm thickness	~7.1–7.2 kg/m ²
BC Primer 349	Primer coat	5–7 m ² /kg





(Actual coverage varies depending on substrate porosity, surface profile, and wastage.)

8). Storage & Shelf Life

- Store in original, unopened containers between +5°C and +30°C.
- Keep away from direct sunlight, heat, and moisture.
- Shelf life: 12 months from date of manufacture under proper storage conditions.

9). Health & Safety

- Avoid contact with skin and eyes. Wear protective gloves, goggles, and clothing.
- Ensure adequate ventilation during application.
- In case of skin contact, wash immediately with soap and water.
- Refer to Material Safety Data Sheet (MSDS) for detailed health and safety information.

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.

