

CHEMFIT FLOOR 263SL

2-Part Epoxy Self-Smoothing and Broadcast System – For Storage Halls, Workshops, Garages & Loading Ramps

PRODUCT DESCRIPTION

ChemFit Floor 263 SL is a two part, multi-purpose, solvent-free epoxy resin binder designed for self-smoothing and broadcast flooring systems on concrete and cementitious screeds. The system cures to form a hard-wearing, gloss finish that is highly resistant to mechanical wear and many industrial chemicals. This versatile binder can be applied as a thin self-smoothing screed or combined with quartz sand to create a heavy-duty broadcast floor or textured mortar screed, offering excellent slip resistance where required. It is an economical solution for areas subject to normal up to medium-heavy wear.

PRIMARY APPLICATIONS

ChemFit Floor 263 SL is recommended for use in conditions such as:

- Self-smoothing flooring for concrete and cement screeds in normal to medium-heavy wear areas
- Broadcast flooring systems for wet process areas, multi-storey car parks, and beverage/food industry facilities
- Suitable for storage halls, assembly areas, maintenance workshops, garages, and loading ramps
- Can be used as a textured coating or mortar screed

KEY FEATURES AND BENEFITS

- **Two part, solvent-free epoxy** – 100% solids; low odor and safe for indoor use
- **Versatile** – Suitable for self-smoothing, broadcast, textured, and mortar systems
- **Good mechanical resistance** – High abrasion and impact resistance for medium-heavy traffic
- **Good chemical resistance** – Resists oils, greases, and industrial chemicals
- **Seamless and hygienic** – Jointless, easy-to-clean gloss finish
- **Slip resistant** – Can be finished with aggregate broadcast for anti-slip properties
- **Conforms to ISO 14644-1 Class 5** – Suitable for applications requiring strict airborne particle limits

MECHANICAL PROPERTIES

Property	Value	Test Method
Shore D Hardness	~76	DIN 53 505
Abrasion Resistance	41 – 62 mg (CS 10/1000/1000)	DIN 53 109 / Taber Test
Compressive Strength	~50 N/mm ²	EN 196-1
Flexural Strength	~20 N/mm ²	EN 196-1
Tensile Adhesion Strength	> 1.5 N/mm ² (failure in concrete)	ISO 4624

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Part A: Pigmented liquid; Part B: Transparent liquid
Color	Range of RAL colors available (e.g., RAL 7032, RAL 9010, RAL 6010)
Basis	Two-part, solvent-free epoxy resin
Mix Ratio (by weight)	Part A : Part B = 79 : 21
Density (mixed resin)	~1.43 – 1.44 kg/L at +23°C
Density (filled resin 1:1)	~1.84 kg/L
Solids Content	~100% (by weight and volume)
Pot Life (at +20°C)	~25 – 30 minutes
Touch Dry (at +20°C)	~12 hours
Full Cure	7 days
Application Temperature	+10°C to +30°C
Substrate Temperature	+10°C to +30°C (must be $\geq 3^{\circ}\text{C}$ above dew point)
Relative Humidity	Max. 80%
Substrate Moisture	< 4% (no rising moisture)

PACKAGING AND STORAGE

Packaging:

- 20 kg unit (Part A + Part B ready-to-mix set)
- Alternative packaging: 10 kg sets available

Storage:

- Store in original sealed containers at +5°C to +30°C
- Protect from direct sunlight, moisture, and freezing
- Keep containers tightly sealed when not in use

Shelf life: 24 months from date of manufacture when stored properly in unopened containers

DOSAGE AND COVERAGE RATES

Application Type	Mix Ratio (Base : Sand)	Consumption (approx.)	Coverage per 20 kg unit
Self-smoothing (1.5-3.0 mm)	1 : 0.8 (with 0.1-0.3 mm sand)	~1.84 kg/m ² per mm	~10.9 m ² per mm
Broadcast base coat (~4 mm system)	1 : 1.0 (with 0.1-0.3 mm sand)	2.00 kg/m ²	~10 m ²
Broadcast sand (0.4-0.7 mm)	—	~6.0 kg/m ²	—
Seal coat	Neat	~0.7 kg/m ²	~28.5 m ²
High-build roller coat	Neat	0.35 – 0.50 kg/m ²	40 – 57 m ²

APPLICATION GUIDELINES

Surface Preparation:

- Substrate must be sound, clean, dry, and free from dust, oil, grease, laitance, curing compounds, and loose particles
- Mechanically abrade (shot blasting or grinding) to achieve open textured surface (CSP 2-3)
- Substrate moisture content must be < 4% with no rising moisture
- Fill blowholes and repair damaged areas with suitable filler

Priming:

- Apply compatible epoxy primer (e.g., **ChemFit EpoxyPrime 140**) at 0.35-0.55 kg/m²
- Allow primer to cure (see curing times below)

Mixing:

- Pre-mix Part A thoroughly before combining
- Add Part B to Part A according to ratio (79:21 by weight)
- Mix with a low-speed drill (300-400 rpm) for 2-3 minutes until uniform
- For self-smoothing: add clean, dry, graded silica sand (0.1-0.3 mm) at specified ratio and mix
- Use within pot life (~25 minutes at +20°C)

Application:

- **Self-smoothing:** Pour material onto prepared and primed substrate; spread using serrated trowel or pin rake; roll with spiked roller to remove air bubbles
- **Broadcast system:** Apply base coat as above; broadcast quartz sand (0.4-0.7 mm) to excess while wet; allow to cure overnight; vacuum loose sand; apply seal coat at ~0.7 kg/m²
- Maintain wet edge to avoid lap marks

Curing Times:

Temperature	Recoat Minimum	Recoat Maximum	Pot Life
+10°C	24 hours	3 days	~50 min
+20°C	12 hours	2 days	~25 min
+30°C	8 hours	1 day	~15 min

Limitations:

- Protect from dust, moisture, and mechanical damage during cure
- Light foot traffic: approx. 24 hours at +20°C
- Full chemical resistance: 7 days
- Do not apply below +10°C or if relative humidity exceeds 80%
- Do not apply if substrate temperature is below dew point (+3°C margin)

HEALTH AND SAFETY

Epoxy resins may cause skin and eye sensitization. If eye contact: rinse with water for 15-20 minutes, seek medical attention. Skin contact: wash with soap and water. If swallowed: do not induce vomiting; rinse mouth, drink water, seek medical aid. Use nitrile gloves, safety glasses, protective clothing. Ensure ventilation – use respiratory protection if ventilation is poor. Refer SDS.

CLEANG OF TOOLS

Clean all brushes, rollers, mixing equipment, and spillages with xylene, acetone, or epoxy thinner immediately after use before material cures. Dried material requires mechanical removal.

APPROVALS AND STANDARDS

ChemFit Floor 263 SL complies with the following standards:

- **ISO 14644-1 – Class 5** (air cleanliness classification for cleanrooms)
- **EN 1504-2** – Surface protection systems for concrete
- **EN 13813** – Screed material and floor coatings
- **ASTM D4060** – Abrasion resistance (Taber Abrader Test)
- **ISO 4624 / EN 1542** – Pull-off adhesion strength
- **DIN 53 505** – Shore hardness testing
- **EN 196-1** – Compressive and flexural strength testing

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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