CHEMFIT PU FLOOR 359

2-Part PU Tough-Elastic Colored Seal Coat – For Abrasion Resistant Flexible Seal Coat for Industrial Floors, Car Park Decks, Ramps & Warehouses

PRODUCT DESCRIPTION

ChemFit PU Floor 359 is a two-part, tough-elastic, colored, non-yellowing polyurethane seal coat specifically formulated as an abrasion resistant flexible seal coat for demanding industrial environments. This advanced polyurethane system provides an optimal balance of toughness and elasticity, offering superior protection against mechanical wear while providing excellent crack-bridging properties. The formulation is non-yellowing, ensuring long-term color stability even in UV-exposed areas. It provides a matt finish with good chemical and mechanical resistance, making it suitable for industrial floors, car park decks, ramps, and warehouses.

PRIMARY APPICATIONS

ChemFit PU Floor 359 is recommended for use in conditions such as:

- Abrasion resistant flexible seal coat for industrial floors, warehouses, and factories
- Protective coating for car park decks, parking garages, and loading ramps
- Flexible top coat for broadcast systems requiring crack-bridging properties
- Seal coat over epoxy mortars and polyurethane wearing layers
- Areas requiring slip resistance with aggregate broadcast

KEY FEATURES AND BENEFITS

- **Two-part polyurethane** – High mechanical strength and good chemical resistance
- **Tough-elastic formulation** – Excellent balance of hardness and flexibility; crack-bridging properties
- **Non-yellowing** – UV stable; suitable for exposed areas; long-term color retention
- **Good chemical resistance** – Resists oils, fuels, de-icing salts, and mild chemicals
- **Watertight** – Impervious to liquids; protects underlying structure
- **Good opacity** – Excellent coverage and hiding power
- **Matt finish** – Attractive, low-glare surface appearance
- **Easy application** – Roller or squeegee application
- **Slip resistant surface possible** – With aggregate broadcast
- **Conforms to Rili-SIB 2001** – Certified for surface protection systems OS 11a/b
- **Available in 32.5 kg unit** – Efficient for medium to large projects

MECHANICAL PROPERTIES

Property	Value
Shore D Hardness	~52
Abrasion Resistance	~160 mg (CS 10/1000/1000)
Tensile Adhesion Strength	> 1.5 N/mm² (failure in concrete)
Crack-Bridging Properties	Excellent (tough-elastic)

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Part A: Pigmented liquid; Part B: Clear/Amber liquid
Color	Range of RAL colors available (standard: RAL 7032, RAL 7037)
Basis	Two-part, solvent-free polyurethane
Mix Ratio (by weight)	Part A : Part B = 78 : 22
Density (mixed)	~1.4 – 1.5 kg/L
Solids Content	~100%
Pot Life (at +20°C)	25 minutes
Pot Life (at +30°C)	15 minutes
Pot Life (at +10°C)	40 minutes
Touch Dry (at +20°C)	6 – 12 hours
Full Cure	7 – 10 days
Application Temperature	+10°C to +30°C
Substrate Temperature	Must be ≥3°C above dew point
Relative Humidity	Max. 80%
Substrate Moisture	< 4% (no rising moisture)

ANTI-SLIP CLASSIFICATION

Aggregate Addition	Classification	Slip Angle	Application Area
No aggregate (smooth finish)	R9	6° – 10°	Dry interior areas
Fine aggregate broadcast	R10	10° – 19°	Occasional wet areas
Medium aggregate broadcast	R11	19° – 27°	Car parks, ramps, industrial areas
Heavy aggregate broadcast	R12	27° – 35°	Wet areas, slopes, heavy industry

DIN 51130 Classifications:

- **R9** – Low slip resistance (dry interior areas)
- **R10** – Normal slip resistance (public areas with occasional wetness)
- **R11** – Good slip resistance (car parks, food preparation areas)
- **R12** – High slip resistance (wet industrial areas, slopes)
- **R13** – Very high slip resistance (heavy oil/grease exposure, steep slopes)

PACKAGING AND STORAGE

Packaging:

- 32.5 kg unit (pre-weighed Part A + Part B)

Storage:

- Store in original sealed containers at +10°C to +25°C
- Protect from direct sunlight, moisture, and freezing
- Store in dry conditions

Shelf life: 12 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATE

Application Type	Consumption (approx.)	Coverage per 32.5 kg unit
Seal coat (smooth, neat)	0.30 – 0.40 kg/m²	80 – 108 m²
R10 anti-slip (fine aggregate)	0.40 – 0.60 kg/m²	54 – 81 m²
R11 anti-slip (medium aggregate)	0.60 – 0.80 kg/m²	40 – 54 m²
R12 anti-slip (heavy aggregate)	0.80 – 1.00 kg/m²	32 – 40 m²

NOTE: Coverage is approximate; varies with substrate porosity, surface profile, and application method. Anti-slip aggregate addition rate: approx. 2 – 4 kg per 30 kg of resin to achieve desired slip resistance.

APPLICATION GUIDLINES

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 texture (CSP 2-3)
- Substrate moisture content must be < 4% with no rising moisture
- Substrate temperature must be at least +3°C above dew point to prevent condensation
- Fill blowholes and repair damaged areas with suitable filler

Priming:

- For porous or dusty substrates, apply compatible epoxy primer (e.g., **ChemFit EpoxyPrime 1400** or **ChemFit Floor 155WN**)
- For polyurethane wearing layers, primer may not be required if base coat is properly cured
- Allow primer to cure completely before applying **ChemFit PU Floor 359**

Mixing:

- Thoroughly pre-mix Part A before combining
- Add Part B to Part A according to ratio (78 : 22 by weight)
- Mix with low-speed drill (300-400 rpm) for 2-3 minutes until uniform
- Pour into another container and mix again for 1 minute to ensure thorough blending
- Use within pot life (see table below)

Pot Life & Curing Times :

Temperature	Pot Life	Recoat Minimum	Recoat Maximum
+10°C	~40 minutes	20-24 hours	48 hours
+20°C	~25 minutes	12 hours	24-36 hours
+30°C	~15 minutes	6 hours	20-24 hours

- **Light foot traffic:** 18-24 hours at +20°C
- **Full chemical resistance:** 7-10 days at +20°C

Application:

- **Smooth seal coat:** Pour material onto prepared and primed substrate; spread using short-pile roller or squeegee; back-roll crosswise for uniform coverage
- **Anti-slip seal coat:** Apply as above; immediately broadcast clean, dry, graded anti-slip aggregate (0.4 – 0.7 mm or 0.7 – 1.2 mm) to excess while wet; allow to cure overnight; vacuum loose aggregate; apply second seal coat if required for complete coverage
- Maintain wet edge to avoid lap marks; work in manageable sections
- 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)
- Protect from rain and water for at least 24 hours after application

HEALTH AND SAFETY

Polyurethane resins may cause skin and eye sensitization. Isocyanates can cause respiratory sensitization. If eye contact occurs, rinse immediately with plenty of water for 15-20 minutes and seek medical attention. For skin contact, wash immediately with soap and water; remove contaminated clothing. If swallowed, do not induce vomiting; rinse mouth and drink water, then seek medical attention. Use gloves (nitrile), safety glasses, and protective clothing during handling. Ensure adequate ventilation – use respiratory protection with organic vapor cartridges if ventilation is poor. Refer to the Safety Data Sheet for detailed information.

CLEAING OF TOOLS

Clean all brushes, rollers, mixing equipment, and spillages with xylene, acetone, or polyurethane thinner immediately after use before material cures. Dried material requires mechanical removal. Dispose of cleaning materials in accordance with local regulations.

APPROVALS AND STANDARDS

ChemFit PU Floor 359 complies with the following standards:

- **EN 13813:2002** – Screed material and floor coatings (CE marked)
- **EN 1504-2:2004** – Surface protection systems for concrete (Coating) – CE marked
- **Rili-SIB 2001** – Certified as part of Surface Protection System OS 11a / OS 11b according to DIN V 18026 and DAfStb guideline
- **DIN 51130** – Anti-slip classification (aggregate dependent)
- **DIN 53 505** – Shore hardness testing
- **DIN 53 509** – Abrasion resistance testing
- **EN 13892-8** – Tensile adhesion strength testing
- **ISO 9001** – Quality management system certified
- **Non-yellowing** – UV stable aliphatic polyurethane
- **Low VOC** – Suitable for enclosed spaces
- Two-part PU tough-elastic colored seal coat

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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