cemseal®

Technical Data Sheet

CEMSEAL EPOFLOR SL SERIES

SELF-SMOOTHING EPOXY TOPPING SYSTEM (NOMINAL THICKNESS: 1.0 MM - 2.0 MM)

SYSTEM DESCRIPTION

CEMSEAL EPOFLOR SL Series is a seamless, solvent-free, self-smoothing epoxy flooring system designed to provide a durable, attractive, and high-performance surface for industrial, manufacturing, commercial, and logistics environments. The system delivers outstanding mechanical strength, abrasion resistance, and chemical resistance while forming a smooth, easily maintainable finish.

Three thickness options are available to suit different service requirements:

- **EPOFLOR SL1** - nominal thickness ±1.0 mm
- **EPOFLOR SL1.5** - nominal thickness ±1.5 mm
- **EPOFLOR SL2** - nominal thickness ±2.0 mm

Optional enhancements include a moisture-barrier layer, heavy-duty mortar underlay, and UV-stable topcoat for specialised service conditions.

KEY FEATURES AND BENEFITS

- Seamless and monolithic finish
- Excellent self-smoothing properties
- High mechanical and abrasion resistance
- Good resistance to industrial chemicals
- Solvent-free, low-VOC epoxy formulation
- Dense, liquid-proof finish
- Easy to clean and maintain
- Adjustable thickness to suit service conditions
- Optional heavy-duty and moisture barrier systems
- UV-stable topcoat option for exposed areas

RECOMMENDED APPLICATION AREAS

- Production and assembly floors
- Logistics centers and warehouses
- Processing and manufacturing areas
- Workshops, mechanical rooms, & maintenance zones
- Light to medium industrial facilities
- Storage and material-handling areas
- Facilities requiring hygienic, seamless, and easy-to-clean finishes

SYSTEM BUILD-UP

Layer	Description	Products
1	Primer	CEMSEAL P100SL
2	Body Coat	CEMSEAL E200SL + CEMSEAL Quartz 60/100

STANDARD SYSTEMS

- **EPOFLOR SL1** - nominal thickness ±1.0 mm
- **EPOFLOR SL1.5** - nominal thickness ±1.5 mm
- **EPOFLOR SL2** - nominal thickness ±2.0 mm

OPTIONAL PERFORMANCE ENHANCEMENTS

SL1/1.5/2-MB (Moisture Barrier System)

- Base Layer : CEMSEAL MB200BC (Epoxy-Cementitious Moisture Barrier)
- Designed for use on slab-on-grade or suspended concrete slabs where substrate moisture exceeds 4% (Tramex CM method)

SL1/1.5/2-HD (Heavy-Duty 4mm Thick Epoxy Mortar System)

- Underlay : CEMSEAL E500SL (3-Component Epoxy Mortar)
- For high-impact, heavy-load, forklift and pallet-truck traffic

SL1/1.5/2-UV (UV-Stable Aliphatic Topcoat System)

- Topcoat : CEMSEAL E100PU-TOP 2K
- Provides enhanced UV stability, color retention, and gloss durability

TECHNICAL PROPERTIES

Properties	Test Method	Typical Value
Compresive Strength	ASTM C579	> 60 N/mm^2
Flexural Strength	BS EN 13892-2	> 30 N/mm^2
Abrasion Resistance	ASTM D4060	≤ 70mg loss (CS-17, 1000g, 1000 cycles)
Hardness (Shore D)	ASTM D2240	≥ 75
Slip Resistance	BS 7976-2	Dry ≥ 40, Wet depend on specification (in accordance with HSE and UKSRG guidelines)
Adhesion Strength (Pull-off)	ASTM D4541	≥ 1.5 N/mm^2

SUBSTRATE QUALITY & REQUIREMENTS

- Concrete substrate must be at least 28 days old
- Minimum compressive strength : 25 MPa
- Minimum pull-off strength : 1.5 MPa
- Moisture content ≤ 4% (by Tramex CM method)
- Surface must be sound, clean, free from oil, grease, curing agents, or other contaminants
- Mechanically prepared (e.g. grinding or shot blasting) to CSP 3-5 profile
- High spots grind off, and all dust removed via vacuum

APPLICATION CONDITIONS & LIMITATIONS

Parameter	Requirement
Ambient Temperature	+8°C to +35°C
Substrate Temperature	+8°C to +35°C ; ≥ 3°C above dew point
Relative Humidity	≤ 85%
Moisture Content	≤ 4.0% (Tramex CM method)

IMPORTANT NOTES

- Ensure the substrate is dry, sound, and properly prepared, and do not apply the system where rising moisture or hydrostatic pressure is present.
- Maintain substrate temperature at least 3 °C above the dew point and protect freshly applied coatings from moisture and condensation for a minimum of 24 hours.
- Treat all cracks appropriately before coating, ensuring static cracks are filled and dynamic cracks are detailed according to best practice.
- Use consistent material batch numbers within each application area to achieve uniform colour and appearance.
- Avoid application under extreme environmental conditions such as direct sunlight, very high substrate temperature, or strong wind.
- Ensure adequate ventilation when applying systems over moisture barrier layers to prevent moisture buildup and condensation issues.
- Respect the recommended overcoating intervals to avoid adhesion issues, trapped moisture, or surface defects.
- Do not expose the system to heavy loads or traffic until full curing has been achieved based on the specified curing schedule.

INSTALLATION SERVICE

Installation shall be carried out by CEMSEAL-approved and trained applicators in accordance with CEMSEAL's documented quality assurance procedures and surface preparation guidelines.

Disclaimer:
The information and any recommendations relating to the application and end-use of all CEMSEAL products are provided in good faith based on CEMSEAL's knowledge and experience of the products. In applications, the differences in materials, and variances of substrates and actual site conditions can vary such that no warranty in respect of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be taken as inferred either from this information, or from any written recommendations, or from any other advice offered by CEMSEAL. The proprietary rights of third parties must be observed. All orders are accepted subject to our sale terms and conditions. All users should always refer to the most recent and up to date issue of the Technical Data Sheet for the product concerned, which is available on request. It is recommended that products should always be properly stored, handled and applied under tested and recommended conditions.

For More Information:

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