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Technical Data Sheet

CEMSEAL CRETEFLOR MF

MEDIUM–HEAVY DUTY POLYURETHANE-CEMENT SELF-SMOOTHING FLOORING SYSTEM (3-5 MM)

SYSTEM DESCRIPTION

CEMSEAL CRETEFLOR MF is a high-performance, polyurethane-cement (PU-C) self-smoothing flooring system designed for medium to heavy-duty industrial environments. The system provides a seamless, dense, matt finish with excellent chemical resistance, mechanical durability, thermal shock resistance, and hygiene performance.

KEY FEATURES AND BENEFITS

- Seamless, hygienic surface suitable for HACCP & GMP environments
- High resistance to organic acids, alkalis, solvents, oils and fats
- Excellent mechanical properties and wear resistance
- Tolerant to substrate moisture and suitable for rapid return-to-service
- Withstands repeated hot water washdowns and thermal cycling
- Non-tainting and solvent-free

RECOMMENDED APPLICATION AREAS

- Food and beverage processing facilities
- Meat, poultry & seafood processing
- Dairies, commercial kitchens and central kitchens
- Chemical and pharmaceutical production areas
- Bottling plants, beverage lines and sugar refineries
- Cold rooms, chillers, freezers (≥ 6 mm recommended)
- Warehouses and logistics zones with pallet jack or forklift movement

SYSTEM BUILD-UP

Layer	Description	Products
1	Scratch Coat	CEMSEAL E200PU-M
2	Body Coat	CEMSEAL E200PU-M

TECHNICAL PROPERTIES

Properties	Test Method	Typical Value
Compressive Strength	EN 13892-2	> 50 N/mm²
Flexural Strength	EN 13892-2	> 15 N/mm²
Abrasion Resistance	ASTM D4060	< 0.1 g loss (1 kg load, 1000 cycles, CS17 wheels)
Hardness (Shore D)	ASTM D2240	≥ 75
Adhesion Strength (Pull-off)	EN 13892-8	≥ 1.5 N/mm² (Concrete failure)
Biological Resistance	BS 6920-1:2000	No growth
Slip Resistance	BS 7976-2 (4S rubber slider)	Dry > 38
Fire Resistance	EN 13501-1	Bfl-s1
Service Temperature		-5°C to +70°C @ 3 mm thickness -10°C to +80°C @ 4 mm thickness -15°C to +90°C @ 5 mm thickness

SUBSTRATE QUALITY & REQUIREMENTS

- Minimum compressive strength: ≥ 25 MPa
- Minimum pull-off strength: ≥ 1.5 MPa
- Concrete Curing Time: Minimum 28 days curing required for new concrete substrates
- Residual moisture is tolerated but surface must be visibly dry with no standing water
- Surface must be sound, clean, free from oil, grease, curing agents, or other contaminants
- Mechanically prepared (e.g. shot blasting or scarifying) to CSP 3-5 profile
- High spots grind off, and all dust removed via vacuum
- Repair all cracks, voids, and surface defects before installation
- Retaining grooves must be created around perimeters, walls, columns, plinths, drains, or any discontinuities.
  - > Groove width & depth : approximately 2x system thickness
  - > Place groove as close as possible to wall; maximum offset ≤ 10 cm
  - > Day joints must also be grooved for proper anchorage and bonding

MIXING

- Mix using slow-speed mechanical equipment (<500 rpm)
- Do not hand-mix
- Avoid entrained air during mixing to minimise blistering
- Scrape sides and bottom of mixing pail at least once for complete homogenisation

APPLICATION CONDITIONS & LIMITATIONS

Parameter	Requirement
Ambient Temperature	+10 °C to +30 °C
Substrate Temperature	+10°C to +35°C ; ≥ 3°C above dew point
Relative Humidity	≤ 80%
Product Temperature	+18°C to +25°C

APPLICATION

Scratch Coat

- Apply thin, uniform layer (~1 mm) to seal the substrate and fill minor irregularities
- Allow sufficient curing before applying body coat

Note:

Pinholes Management

- After the scratch coat, visually inspect and mark all pinholes
- During application of the body coat, patch pinholes using freshly mixed material to avoid trapped air and blister formation
- If pinholes are excessive, apply an additional scratch coat to achieve a pore-free surface

Body Coat

- Spread using serrated trowel or pin rake to achieve designed thickness (3-5 mm)
- Consumption Reference: Approximately 1.9 kg/m² per mm of applied thickness.
- Flatten with steel trowel and spike-roll within 2 minutes to release air
- Maintain a wet edge throughout installation

CURING TIME

Stage	Timeframe @ 25°C
Light foot traffic	18-24 hours
Normal traffic	3 days
Full chemical resistance	7 days

IMPORTANT NOTES

- Working time is temperature-dependent; pot life reduces significantly above 30°C.
- Ensure adequate ventilation during installation.
- Protect the floor from condensation, water, and overhead leaks for 24 hours after application.
- CEMSEAL CRETEFLOR MF may discolor under UV exposure; performance is unaffected.
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- Avoid mixing different batch numbers within the same continuous area to maintain colour consistency.
- Not recommended for areas subjected to direct steam cleaning.
- Not suitable for vertical or suspended surfaces unless otherwise specified.
- Avoid installing over substrates with active outgassing or moisture vapour transmission.

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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