cemseal®

Technical Data Sheet

CEMSEAL PU800-TR

HIGH-HARDNESS POLYURETHANE WATERPROOF COATING FOR TRAFFIC-BEARING AREAS

DESCRIPTION

CEMSEAL PU800-TR is a single-component, moisture-reactive aliphatic polyurethane waterproof coating formulated for applications exposed to intensive pedestrian and vehicular traffic. Once cured, it forms a continuous, joint-free membrane with high mechanical strength, superior abrasion resistance, and long-term UV stability.

The material is cold-applied and self-levelling, enabling efficient installation while delivering a durable traffic-resistant waterproofing layer. It may be used as a standalone system or as a protective wearing surface over compatible polyurethane base coats

FEATURES AND BENEFITS

- UV-stable aliphatic formulation with long-term colour retention
- Single-component system requiring no mixing or heating
- Cold-applied installation with moisture-activated curing
- Resistant to water and mild chemical exposure
- Strong adhesion to properly prepared concrete and primed substrates
- Seamless membrane eliminating lap joints and weak points
- Excellent flexibility and crack-bridging capability
- High surface hardness with strong resistance to wear and abrasion

RECOMMENDED USES

- Parking decks and vehicular ramps
- Roof slabs and podium decks
- Balconies and terraces
- Stadium concourses and arenas
- Industrial and service roof areas
- Infrastructure structures requiring abrasion resistance

PRODUCT PROPERTIES

Appearance	Viscous liquid
Colour	Grey
Density	1.15 - 1.3 kg/L
Viscosity	Approx. 7000 cps
Solids Content	85 - 87%
Working Time (23°C)	Approx. 2 hours
Packaging	20 kg metal pail

TECHNICAL PROPERTIES

Properties	Test Method	Typical Value
Volatile Organic Content	ASTM D2369	~165 g/L
Tensile Strength	ASTM D412	≥ 20 MPa
Elongation at Break	ASTM D412	≥ 250 %
Tear Resistance	ASTM D624	≥ 60 N/mm
Adhesion to Concrete	ASTM D7234	≥ 2.5 MPa
Surface Hardness	ASTM D2240	Shore A ≈ 90
Abrasion Resistance	ASTM D4060	~16 mg loss
Water Pressure Resistance	DIN 1048-5	Watertight
Low-Temperature Flexibility	ASTM D522	No Cracking
Initial Surface Dry	ASTM D1640	~2 hours

APPLICATION DATA

Material Consumption

- Total system: approx. 2.0 - 2.3 kg/m²
- Dry film thickness: approx. 1.5 mm (applied in two coats)
- Per coat consumption: approx. 1.0 - 1.2 kg/m²
- Coverage: approx. 9 - 10 m² per 20 kg pail

Application Conditions

- Ambient temperature: +5 °C to +40 °C
- Substrate temperature: +5 °C to +40 °C
- Relative humidity: below 85 %
- Substrate must be at least 3 °C above dew point

APPLICATION METHOD

Surface Preparation

All substrates must be structurally sound, dry, and free from contaminants such as oil, grease, dust, or curing compounds. Concrete surfaces should be mechanically prepared to expose a clean, open texture. Any surface defects must be repaired prior to coating. For optimal adhesion and reduction of pinhole formation, application of a Cemseal epoxy primer is recommended.

Detail Treatment

Critical areas such as joints, cracks, drains, and corners shall be treated in advance. For larger cracks, apply a suitable sealant and embed reinforcing fabric between wet coats to ensure continuity and durability.

Main Application
Apply CEMSEAL PU800-TR using a squeegee, trowel, or roller at the specified coverage rate. Subsequent coats may be applied after 12-24 hours, subject to ambient conditions.

Slip-Resistance (If Required)
Where anti-slip performance is required, clean dry aggregate may be broadcast into a wet intermediate layer and encapsulated with a finishing coat.

CURING & TRAFFIC OPENING
Curing time is influenced by temperature, humidity, and applied thickness. Traffic exposure is permitted only after full curing has been achieved to prevent surface damage or performance reduction.

LIMITATIONS
- Early exposure to traffic may result in surface damage
- Compatibility testing is required when applied over existing coatings
- Not suitable for direct application onto bituminous surfaces without isolation
- Adequate ventilation is required during application

STORAGE AND SHELF LIFE
- Store in dry, shaded, and well-ventilated conditions
- Protect from direct sunlight, moisture, and ignition sources
- Recommended storage temperature: +5 °C to +30 °C
- Shelf life: 12 months in unopened original packaging

HEALTH AND SAFETY
Refer to the Cemseal Safety Data Sheet (SDS) prior to use. Construction personnel must wear appropriate PPE. Open flames and smoking are strictly prohibited on site.

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.

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