cemseal®

Technical Data Sheet

CEMSEAL PUW-R

ROOT-RESISTANT POLYURETHANE BITUMEN LIQUID-APPLIED WATERPROOFING COATING

DESCRIPTION

CEMSEAL PUW-R is a single-component, polyurethane bitumen hybrid liquid-applied coating for concealed application. The coating has excellent tensile and elongation properties, excellent chemical resistance and is environmentally friendly.

FEATURES AND BENEFITS

- Seamless
- Root resistant
- Chemical resistant
- Suitable for potable water storage

RECOMMENDED USE

- Flat roofs
- Inverted roofs
- Planters and green roofs

PRODUCT PROPERTIES

Pack Size	20kg Other sizes available on request
Appearance	Black
Specific Gravity	1.10 ± 0.02
Solid Content	60 ± 5%
Service Temperature	-20°C to 70°C

TECHNICAL PROPERTIES

Properties	Test Method	Typical Value
Tensile Strength	ASTM D412	≥ 1.2 MPa
Elongation at Break	ASTM D412	≥ 500%
Water Vapour Transmission	ASTM E96	≥ 0.5g/m²/hr
Watertightness	EN 1928	No leakage
Adhesion to Concrete	ASTM D7234	≥ 1.0 MPa
Crack Bridging	ASTM C836	≥ 2mm
Shore Hardness	ASTM D2240	50
Chemical Resistant - 0.5% NaOCl - 1.25% NH4OH - 3.7% HCl	ASTM D1308	Passed
Resistance to Root Penetration	DIN 4062	Passed

SUBSTRATE REQUIREMENT AND PREPARATION

The substrate and supporting structure must be of sufficient structural strength for application of waterproofing build-up. The substrate shall be smooth, clean, free of dust, curing compound, mould release agent, laitance, loose particles and other contaminants. All joints shall be prepared and filled with suitable filler or sealant. Any honeycomb, crack or damage to the concrete substrate shall be repaired with suitable cement mortar. The acceptable concrete substrate shall be in accordance with ICRI Concrete Surface Profile 1 to 5.

APPLICATION

Application Temperature	5°C to 40°C	
Dew Point	Min. +3°C above dew point between substrate and uncured coating	
Substrate Moisture Content	≤ 6% parts by weight	
Relative Humidity	≤ 80%	
Drying & Overcoating Time	25°C	35°C
- Touch-dry time	6 hr	3 hr
- Full cure	48 hr	24 hr
- Overcoating (min)	6 hr	3 hr
- Overcoating (max)	24 hr	24 hr

Primer

CEMSEAL PUW-R can be used as a primer. Dilute CEMSEAL PUW-R with clean water up to a ratio of 1:1 (w/w). Apply the diluted CEMSEAL PUW-R at a rate of 0.75-0.85 kg/m² (0.71 - 0.81 l/m²). Re-apply primer for more porous substrates or if the primer has been left exposed for more than 24 hours since application

Coating

CEMSEAL PUW-R can be applied with roller, brush, trowel or airless spray. Apply CEMSEAL PUW-R at a rate of 1.15 - 1.30 kg/m² (1.05 - 1.18 l/m²) per coat. A minimum of 2-coat application is recommended, with each subsequent coat applied in perpendicular direction to the prior coat to achieve a uniform coating.

Theoretical coverage:

- 2.3 - 2.6 kg/m² @ 1.5mm DFT

COMPATIBILITY
CEMSEAL PUW-R is compatible with most building materials and substrates.

STORAGE AND SHELF LIFE
Storage
CEMSEAL PUW-R should be stored in original manufacturer's packaging and position, at room temperature between 5°C and 25°C in a shaded, cool, dry and away from direct sun exposure. It shall also be stored at least 2 metres away from direct heat source.

Shelf Life
Expected 12 months shelf life with the above-mentioned storage conditions.

HEALTH AND SAFETY
User must refer to Safety Data Sheet before usage of this product.

BASIS OF TECHNICAL DATA
All technical data provided in this Technical Data Sheet are based on laboratory tests. Actual performance may vary due to factors beyond our control.

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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