cemseal®

Technical Data Sheet

CEMSEAL POLYUREA-H

POLYUREA HYBRID SPRAY-APPLIED WATERPROOFING COATING

DESCRIPTION

CEMSEAL POLYUREA-H is a solvent-free, fast-cure polyurea hybrid spray-applied coating. The coating has excellent tensile and elongation properties, abrasion resistance and excellent chemical resistance. The coating offers a wide range of applications as waterproofing, floor coating and protective coating.

FEATURES AND BENEFITS

- Moisture tolerant
- Abrasion resistant
- Higher crack bridging
- Root and rhizome resistant
- Fast cure and return to service
- UV resistant with application of CEMSEAL POLYUREA TOPCOAT

RECOMMENDED USE

- Flat roofs
- Inverted roofs
- High slope roofs
- Viaducts and bridges
- Car park decks and driveways
- Stadium seating floor application
- Green roofs and planters

PRODUCT PROPERTIES

Pack Size	Part A : 210kg Part B : 200kg Other sizes available on request
Appearance	Grey / Green / Blue Other colours available on request
Specific Gravity	Part A : 1.11 ± 0.02 Part B : 1.03 ± 0.02
Solid Content	98 ± 2%
Service Temperature	-20°C to 70°C

TECHNICAL PROPERTIES

Properties	Test Method	Typical Value
Tensile Strength	ASTM D412	≥ 18 N/mm^2
Elongation at Break	ASTM D412	≥ 480%
Water Vapour Transmission	ASTM E96	≥ 0.5g/m^2/hr
Watertightness	EN 1928	No leakage
Tear Strength	ASTM D624	≥ 75 kN/m
Adhesion to Concrete	ASTM D7234	≥ 1.5 MPa
Crack Bridging	ASTM C836	≥ 2mm
Shore Hardness	ASTM D2240	80
Chemical Resistant - Seawater - Hydraulic Fluid - Diesel Fuel - 10% Hydrochloric Acid - 10% Sulphuric Acid	ASTM D543	Passed
Abrasion Resistant	ASTM D4060	≤ 100mg

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	10°C to 40°C		
Dew Point	Min. +3°C above dew point between substrate and uncured coating		
Substrate Moisture Content	≤ 8% parts by weight		
Relative Humidity	≤ 80%		
Drying Time	15°C	25°C	40°C
- Touch-dry time	30 sec	25 sec	20 sec
- Full cure	30 min	30 min	25 min

Primer
Apply CEMSEAL PRIMER PU-SP at a rate of 0.2 - 0.3 kg/m² (0.26 - 0.41 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 POLYUREA-H should be sprayed using a hot plural spray machine. Heat up both Part A and B to temperature of 65 - 70°C. Ensure the material in the spray hoses are of the same temperature.

Theoretical coverage:
- 1.3 kg/m² at 1mm
- 1.95 kg/m² at 1.5mm
- 2.6 kg/m² at 2mm

Topcoat
For exposed areas, apply CEMSEAL POLYUREA TOPCOAT by roller, brush or airless spray at a rate of 0.2 - 0.3 kg/m² (0.26 - 0.41 l/m²). Ensure no foot traffic or other activities for 12 to 24 hours to allow for full cure.

COMPATIBILITY
CEMSEAL POLYUREA-H is compatible with most building materials and substrates.

STORAGE AND SHELF LIFE
Storage
CEMSEAL POLYUREA-H 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:

CEMSEAL SINGAPORE PTE. LTD. (202405420H)
Singapore Office: 1 One-north Crescent, Level 7, Singapore 138538

CEMSEAL INDUSTRIES SDN. BHD. (884153-T)
Corporate Office: No. 10, Jalan Emas 29, Taman Sri Putri, 81300 Skudai, Johor, Malaysia.
Factory: No. 68, Jalan Perniagaan Setia 6, Taman Perniagaan Setia, Setia Business Park II, 81100 Johor Bahru, Malaysia.

Website: www.cemseal.com
Email: info@cemseal.com

QMS - 005 100 19013
EMS - 005 104 19005

QMS - 44 100 19 92 0012
EMS - 44 104 19 92 0012