cemseal®

Technical Data Sheet

CEMSEAL PU HYBRID

(formerly known as CEMSEAL PU-G)

POLYURETHANE HYBRID WATERPROOFING COATING

DESCRIPTION

CEMSEAL PU HYBRID *(formerly known as CEMSEAL PU-G)* is a single-component, water-based polyurethane hybrid waterproofing coating. The coating is UV-resistant, flexible and smooth finished. Reinforcement can be embedded into the coating to increase tensile strength, increase resistance against cracking and enhance durability.

FEATURES AND BENEFITS

- Seamless
- UV-resistant
- Non-hazardous
- Adheres well to most building materials
- Fast cure and return to service

RECOMMENDED USE

- Clay tiles
- Metal roofs
- Concrete roofs
- Concrete external wall
- Unglazed ceramic tiles

PRODUCT PROPERTIES

Pack Size	20kg Other sizes available on request
Appearance	Various colour options available
Specific Gravity	1.35 ± 0.1
Solid Content	65 ± 5%
Service Temperature	-20°C to 70°C

TECHNICAL PROPERTIES

Properties	Test Method	Typical Value
Tensile Strength	ASTM D412	≥ 3.6 MPa
Elongation at Break	ASTM D412	≥ 550%
Water Vapour Transmission	ASTM E96	≥ 0.40g/m²/hr
Watertightness	EN 1928	No leakage
UV Resistant	ASTM G154	Passed
Adhesion to Concrete	ASTM D7234	≥ 1.8 MPa
Crack Bridging	ASTM C836	≥ 2mm
Shore Hardness	ASTM D2240	69
Chemical Resistant - 0.5% NaOCl - 1.25% NH4OH - 3.7% HCl	ASTM D1308	Passed

SUBSTRATE REQUIREMENT AND PREPARATION

Concrete Substrate

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.

Metal Substrate

The substrate and supporting structure must be of sufficient structural strength for application of waterproofing build-up. The substrate shall be clear of loose rust, old paint, scale, oil and other contaminants. Grit blasting of metal surface is preferred before primer application. The surface preparation shall be in accordance with SSPC-SP1 or SP2

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 & Overcoating Time	30°C
- Touch-dry time	1 hr
- Full cure	8 hr
- Overcoating (min)	4 hr
- Overcoating (max)	8 hr

Primer: Concrete Substrate

CEMSEAL PU HYBRID can be used as a primer. Dilute CEMSEAL PU HYBRID with clean water up to a ratio of 1:1 (w/w). Alternatively, apply CEMSEAL PRIMER AC-W at a rate of 0.10 - 0.15 kg/m² (0.13 - 0.20 l/m²). Re-apply primer for more porous substrates or if the primer has been left exposed for more than 24 hours since application.

Primer: Metal Substrate

Apply CEMSEAL PRIMER AC-WM at a rate of 0.10 - 0.15 kg/m² (0.14 - 0.21 l/m²). Re-apply if the primer has been left exposed for more than 24 hours since application.

Coating: Concrete Substrate
CEMSEAL PU HYBRID can be applied by roller, brush or spray. Apply CEMSEAL PU HYBRID at a rate of 1.00 - 1.25 kg/m² (0.74 - 0.93 l/m²) per coat. A minimum of 2-coat is recommended, with each subsequent coat applied perpendicularly to the previous coat. Ensure each coat is tack-free prior to application of subsequent coat. A dry film thickness of 1.0 - 1.2mm is recommended.

Coating: Metal Substrate
CEMSEAL PU HYBRID can be applied by roller, brush or spray. Apply CEMSEAL PU HYBRID at a rate of 0.60 - 0.80 kg/m² (0.44 - 0.60 l/m²) per coat. A minimum of 2-coat is recommended, with each subsequent coat applied perpendicularly to the previous coat. Ensure each coat is tack-free prior to application of subsequent coat. A dry film thickness of 0.6 - 0.8mm is recommended.

COMPATIBILITY
CEMSEAL PU HYBRID is compatible with most building materials and substrates.

STORAGE AND SHELF LIFE
Storage
CEMSEAL PU HYBRID 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