

POLYSEAL POLYUREA-P

FAST SETTING, PURE POLYUREA ELASTOMERIC COATING

DESCRIPTION

POLYSEAL POLYUREA-P is a fast setting, pure aromatic polyurea elastomeric waterproof coating. It is a two-components, 100% solid spray-applied, rapid curing pure Polyurea system. It is designed as a waterproofing coating as well as protective coating. The seamless coating provides an elastic yet tear-resistant surface for applications subjected to extreme wear and tear, strong impact and chemical exposure. Part A is the isocyanate component and Part B is the Polyurea's amine blend.

USES

POLYSEAL POLYUREA-P is suitable for both indoor and outdoor applications.

- ⇒ Indoor and outdoor floor slab
- ⇒ Potable water tank and pipe lining
- ⇒ Cold room flooring
- ⇒ Anti-corrosion coating for buried and submarine steel pipelines
- ⇒ Sewage treatment plants
- ⇒ Theme parks and decorative designs
- ⇒ Airports
- ⇒ Aquarium lining
- ⇒ Waste water tanks
- ⇒ Lining on concrete walls to prevent fragmentations from explosions
- ⇒ Refineries
- ⇒ Film props, loudspeaker boxes and furniture

ADVANTAGES

- ⇒ Seamless and monolithic, including field joints.
- ⇒ Excellent chemical resistance, thermal stability and UV resistance.
- ⇒ Excellent impact, abrasion and puncture resistance.
- ⇒ Elastic, bridge cracks on concrete surface.
- ⇒ Fast turnaround time whereby coated surface can be put into service within hours.
- ⇒ Aesthetically pleasing with smooth surface and can come in variations of colours.

APPLICATION GUIDE

Environment Temperature	0 °C to +45 °C
Product Pre-heat Temperature	+65 °C to +75 °C
Pipe Pre-heat Temperature	+55 °C to +65 °C
Relative Humidity	≤ 80%
Spray Gun	Fusion-air purge or mechanical purge
Static Pressure	2300 – 2500 psi
Dynamic Pressure	2000 – 2200 psi
Recoating Interval	≤ 8 hours

TYPE



ADVANTAGES



COVERAGE (PER COAT)

1.0 kg/m²

COATINGS

2 coats (min)

COMPONENT

2
PART

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TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Solid content (by wt) [%]	100	-
VOC, [g/L]	Negligible	ASTM D 3960
Shore A hardness	70-80	ASTM D 2240
Shore D hardness	40-50	ASTM D 2240
Tensile strength, [N/mm ²]	>15	ASTM D 412
Elongation at break, [%]	>500	ASTM D 412
Modulus @ 100%, [MPa]	>10	ASTM D 412
Tear Strength, [N]	>50	ASTM D 624
Puncture Resistance, [N]	>800	ASTM E 154
Shear adhesion to concrete, [N/mm ²]	>1.5	ASTM D 4541
Shear adhesion to asphalt, [N/mm ²]	>0.3	BD47
Resistance to hot asphalt, [°C]	160	-
Crack bridging, [mm]	>3	ASTM C 836
Abrasion resistance, [mg]	20/1000cycles	ASTM D 4060
Chemical resistance	pH 2.5 - 11	ASTM D 543
Indentation by aggregate during asphalt placing	Negligible	BD47
Resistance to chisel impact	No indentation	BD47
Moisture vapor transmission, [g/h/m ²]	<0.03	ASTM E 96
WRC non toxicity	Passes	BS 6920
Gel time, [secs]	13	-
Tack free time, [secs]	30	-
Open to use, [mins]	60	-
Service temperature, [°C]	-20 to 50	-

*All tested & physical parameter values are subject to a 5-15% tolerance factor

PACKAGING

PART A (ISO) : 220 L drums

PART B (AMINE) : 200 L drums

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APPLICATION

Surface Preparation

Concrete surface should be clean and free from oil, grease and other contaminants. New concrete shall be allowed to cure for at least 28 days before application of primer.

The ideal mode of surface preparation for concrete is abrasive blasting, vacuum-assisted blasting and centrifugal shot blasting, as described in ASTM D4259. A sound concrete surface with adequate profile and surface porosity should be produced. Any blow holes and minor surface imperfections shall be filled with recommended filler prior to application of Primer.

Steel surface shall be free from oil and grease. The surface to be coated shall be dry abrasive blasted to Sa 2 ½ (ISO 8501-1:2007). All welding seams must have a surface finish of which ensures that the quality of the paint system will be maintained in all respects. Holes in welding seams, undercuts, cracks, etc. should be avoided.

If found, they must be treated with either welding and/or grinding. All sharp edges must be removed or rounded off in such a way that the specified film thickness can be build-up on all surfaces. Radius of rounding should be a minimum of 2 mm.

Priming

After surface preparation, the floors should be primed with suitable CHEMIND'S Polyurea Primer.

Broadcast of fire-dried sand is recommended for optimum adhesion properties.

Application

This product must be applied by a specialist applicator approved by CHEMIND. DO NOT dilute **POLYSEAL POLYUREA-P** with any foreign materials under any circumstances. Recommended minimum thickness is 1.5 mm. Use appropriate chemical for flushing of equipment. Refer to Technical Department of CHEMIND for the right chemical to use.

Storage

POLYSEAL POLYUREA-P must be kept in a dry, air-conditioned storage space with temperature between 5 °C and 30 °C in the original unopened containers to have a shelf-life of up to 10 months from manufacturer's date. Any changes in colour have no negative effects on the reactivity and physical properties of the coating.

COVERAGE

POLYSEAL POLYUREA-P is applied at a rate of 1.0 kg/m² per coat. A minimum of 2 coat IS required.

SAFETY HANDLING

Avoid contact with eyes and skin. Wear suitable protective clothing, gloves and eye/face protection at all times. Ensure adequate ventilation and avoid inhalation of vapour and aerosol. Use supplied air hood.

POLYSEAL POLYUREA-P may cause sensitization by inhalation and skin contact. In case of eye contact, first aid must be administered immediately. The eyes should be held open while flushing with a continuous low pressure stream of water for at least 15 minutes. Seek medical advice immediately. If swallowed, seek medical attention immediately. Do not induce vomiting.

Legal Notes:

'Statements made in this bulletin are for the assistance of our customers. They are based on our experience and judgment but must not be regarded as amounting to a legal warranty or as involving any liability on our part. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of this product must test the product's suitability for the intended application and purpose. CHEMIND reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. Users may always refer to the most recent issue of our Product Data Sheet for the products concerned, copies of which will be supplied upon request.'

Made In Malaysia

SCOPE OF REGISTRATION AND STANDARDS

Manufacture of Waterproofing materials. Compliance with ASTM technical standards and AS 3740 - 2004 Australia Standard. SIRIM certification is available for selected products upon request, subject to applicable testing and certification requirements.



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