



PRITHVI CHEMSHIELD

Category: Two-Component Acrylic Polyurethane Coating

1. PRODUCT DESCRIPTION

PRITHVI CHEMSHIELD is a two-component acrylic polyurethane coating offering excellent weathering, colour retention, adhesion, hardness and abrasion resistance, with good resistance to fuels, oils and industrial chemicals. Provides a durable, high-gloss protective finish for industrial and maintenance applications.

The tough, durable coating offers exceptional chemical and mechanical properties, including high impact resistance, and accommodates dimensional changes in the substrate to ensure an ideal balance of functional properties. Suitable for both interior and exterior application.

2. RECOMMENDED USES / APPLICATIONS

- Metal substrates & maintenance coating
- Automotive OEM & refinish
- Offshore structures
- Chemical & petrochemical plants
- Bridges
- Pulp & paper mills
- Power industry
- Oil and Gas Plants

3. KEY FEATURES & BENEFITS

- Excellent weathering resistance & outstanding color retention
- High gloss, hardness & abrasion resistance
- Good resistance to fuels, oils, petrol and industrial chemicals
- Exceptional adhesion and high impact resistance
- Absorbs dimensional changes in the substrate for balanced functional properties
- Suitable for both interior and exterior application

4. PHYSICAL & CHEMICAL PROPERTIES

Weight per Litre (at 30°C)	1.00 kg/Ltr (+/- 0.1)
Mixing Ratio (Base : Hardener)	4 : 1 by volume
Solids Content	45 – 60%
Maturation Time	30 minutes



Pot Life	Approximately 2 – 4 hours at 30°C
Temperature Resistance	300°C dry heat
QUV Resistance	Passes 1000 hrs
Supply Viscosity	20 – 25 sec on Ford Cup B4 at 30°C
Gloss @ 60° Angle	85 units minimum

5. APPLICATION DETAILS

Method of Application	Airless Spray, Air Spray, Brush, Roller
Application Conditions	For optimum performance, apply at an ambient temperature between 20°C and 40°C and relative humidity below 75%.
Recommended Thinner	PU Thinner (as recommended)
Spray Pressure	30 – 40 p.s.i. (2.2 – 2.8 kg/cm ²)
Number of Coats	Apply 1 – 2 coats of PRITHVI CHEMSHIELD over the base coat for a high-gloss finish.
Covering Capacity	8 – 10 sq mt/ltr/coat (depending on the method of application and film thickness)
Drying Time (at 30°C)	Touch-dry: 20 minutes Tack-free: 2 hours Sanding-dry: 5 – 6 hours Hard-dry: overnight Complete cure: 72 hours
Re-coating Time	12 hours at 30°C Not to exceed 72 hours

6. SURFACE PREPARATION

Surface to be coated should always be free of rust, dust, grease or oil. It should have a profile of at least Sa 2½ to which the paint can get adhesion. After achieving a profile of Sa 2½, the primer should be applied within 2 hours. The surface should be made rough with the help of abrasive material or sandblasting to achieve the desired profile. The system of coating should be selected depending on the type of substrate. Apply primers — preferably PU primer or epoxy primer — as per requirement and atmospheric conditions, smoothen the surface, and then apply PRITHVI CHEMSHIELD.

Sand with emery paper no. 320 or 400 between the application of successive primer and finish coats. Allow an inter-coat interval of 4 hours.

7. ADDITIONAL NOTES

- Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with thinner.
- Once units of paint have been mixed, they should not be resealed. After prolonged stoppages, work should recommence with freshly mixed units.



- Surface temperature must always be a minimum of 3°C (5°F) above the dew point.
- Ensure adequate ventilation. Condensation occurring during or immediately after application may result in a matt finish and an inferior film.
- Premature exposure to ponding water will cause a colour change, especially in dark colours and at low temperatures.

8. STORAGE & HANDLING

Store in a cool, dry place.

9. SHELF LIFE

Base	12 months from the date of manufacturing
Hardener	6 months from the date of manufacturing

10. HEALTH, SAFETY & DISPOSAL

Flash Point	Non-Flammable
Fire Hazard Class	Flammable
Health Hazard Class	Harmful as it contains volatile organic solvents. Avoid contact with skin and eyes.
Safety Precautions	Work in a well-ventilated place. Protective clothing, such as overalls, hand gloves and eye goggles, are recommended.
Disposal	Dispose of in landfilling. Do not dispose of in any drain or water channel.

DISCLAIMER

The information contained in this Technical Data Sheet is provided in good faith and is based on Prithvi Coatings' current knowledge and testing believed to be reliable. It is intended as a general guide only and does not constitute a warranty of performance, as actual results may vary depending on application conditions, substrate, and equipment beyond our control. Users should conduct their own trials to confirm suitability for their specific purpose prior to full-scale use. Prithvi Coatings reserves the right to amend this data without prior notice as products are continually reviewed and improved. Please ensure you are referring to the most current version of this document.