

CORROSHIELD PU**Product Description:**

Polyurethane Corrosion Resistance Coating is a high-performance, two-component, solvent-based protective coating designed to provide superior resistance to corrosion, abrasion, and environmental elements. Ideal for use on metal surfaces, the coating forms a durable, flexible, and resistant barrier, ensuring long-lasting protection in harsh industrial and marine environments.

Key Features:

- **Corrosion Resistance:** Protects metal substrates from rust, corrosion, and oxidation.
- **Abrasion Resistance:** Resists wear and tear caused by physical abrasion.
- **Chemical Resistance:** Resistant to a wide range of chemicals, including acids, alkalis, and solvents.
- **UV Stability:** Retains color and finish under exposure to UV light, minimizing fading and degradation.
- **High Flexibility:** Allows for expansion and contraction of substrates without cracking.
- **Excellent Adhesion:** Adheres well to metals, concrete, and other commonly used surfaces.
- **Fast Drying:** Quick drying time for efficient application.
- **Environmental Resistance:** Provides excellent protection against weathering, saltwater, and other environmental factors.

Product Application:

- **Substrate:** Steel, aluminum, galvanized metal, concrete, and other metal surfaces.
- **Application Method:**
 - **Spray Application:** Airless spray or conventional spray system.
 - **Brush or Roller Application:** For smaller or detailed areas.
- **Surface Preparation:**
 - Clean and remove all dirt, oil, grease, rust, and other contaminants from the surface using appropriate cleaners and degreasers.
 - For metal surfaces, ensure that they are sandblasted or mechanically cleaned to a minimum of SSPC-SP 6 standard.

- For concrete, ensure the surface is dry and free of laitance.

➤ **Mixing Ratio:**

- **Resin:** 9 parts by volume
- **Hardener:** 1 part by volume
- **Pot Life:** 4-5 hours at 25°C (77°F)

➤ **Drying Time (at 25°C / 77°F):**

- **Touch Dry:** 1-2 hours
- **Recoat Time:** 4-6 hours
- **Full Cure:** 7-10 days (depending on thickness and ambient conditions)

➤ **Coverage Rate:**

- 8-10 m² per liter at 50 µm DFT (Dry Film Thickness), depending on surface texture and porosity.

Technical Properties

Type	Two-component Polyurethane
Color Range	Insert Color Range or Specific Color
Gloss Level	semi-gloss or matte
Solid Content	60-70% (by weight)
Viscosity (at 25°C)	80-120 KU
Density	1.2-1.4 g/cm ³
Dry Film Thickness (DFT)	50-100 µm (single coat)
VOC Content	<400 g/L
Flash Point	25°C (77°F) (for the hardener component)
Chemical Resistance	Excellent against oils, fuels, solvents, acids, and alkalis
Service Temperature Range	-20°C to +80°C (-4°F to +176°F)

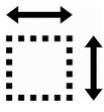
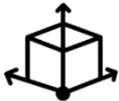
5. Performance Characteristics:

Test	Standard	Result
Corrosion Resistance (Salt Spray)	ASTM B117	>5000 hours (ASTM B117 salt spray test)
Abrasion Resistance	ASTM D4060 (Taber Abraser)	<50 mg loss (CS-10 wheel, 1000g load, 1000 cycles)
Impact Resistance	ASTM D2794	>160 in-lb (direct impact)
Adhesion Strength	ASTM D4541	>20 MPa (concrete); > 8 MPa (steel)
UV Resistance	ASTM G154 (QUV)	No significant degradation after 1000 hours
Water Resistance	ASTM D870	No blistering, no delamination after 1000 hours immersion

6. Health & Safety:

Precautions:

- Use in well-ventilated areas.
- Wear appropriate protective equipment, including gloves, goggles, and a respirator (if necessary).
- Avoid contact with skin and eyes. In case of contact, rinse immediately with plenty of water.
- Do not ingest. If swallowed, seek medical attention immediately.
- **Safety Data Sheet (SDS):** Available upon request.
- This TDS is a general guide, so you may need to adjust it based on specific formulations, application methods, or standards relevant to your product.

COVERAGE RATE	PACK SIZE	SHELF LIFE
		
<ul style="list-style-type: none"> • 1.5kg/m² per mm thickness 	25kg	12 months from date of manufacture if stored in shaded and dry area.

7. Storage and Shelf Life:

- **Storage Conditions:**
 - Store in a cool, dry area away from direct sunlight, heat sources, and open flames.
 - Keep containers tightly closed when not in use.
- **Shelf Life:**
 - **Resin:** 12 months from the date of manufacture (in an unopened container).
 - **Hardener:** 6 months from the date of manufacture (in an unopened container).

8. Packaging:

- **Resin (Part A):** 5L, 20L metal pail or drum
- **Hardener (Part B):** 1L, 5L metal pail or drum
- **Total Kit Sizes:** 5L, 20L, 25L (standard)

9. Disclaimer:

The information provided in this Technical Data Sheet is based on current knowledge and experience. Since the conditions of application and use are beyond our control, it is the user's responsibility to determine the suitability of the product for their specific application. The manufacturer assumes no liability for the use of this product outside the stated guidelines.

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