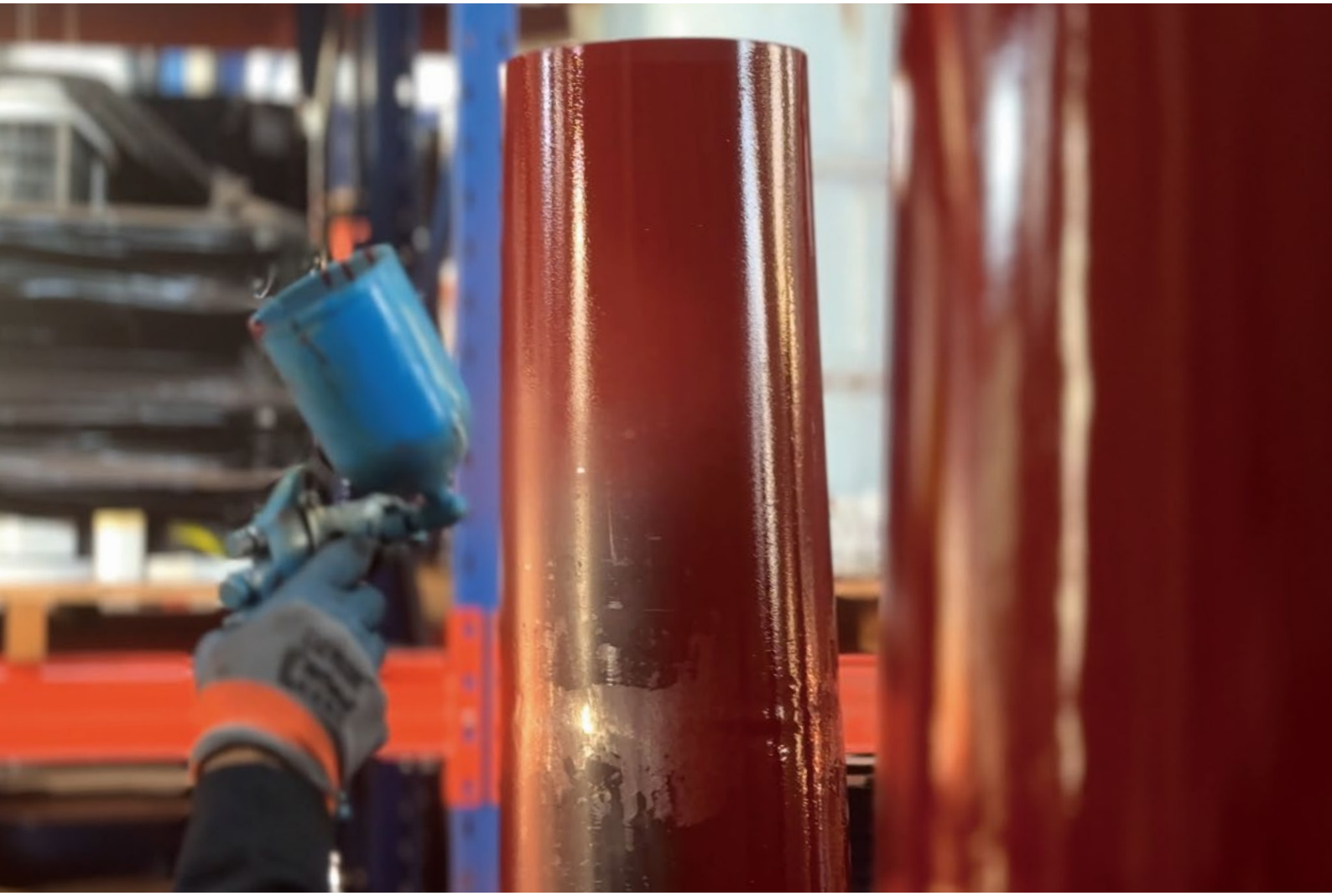
YUXI

ANTI-CORROSIVE POLYURETHANE PRIMER FOR EXPOSED METAL SUBSTRATES

D-502



AMPP CORPORATE MEMBER

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Anti-corrosive Polyurethane Primer for Exposed Metal Substrates D-502

YUXI's D-502 solvent based polyurethane primer is a two-component, rust inhibitive prime designed for use over various metal substrates. It has been engineered to promote the adhesion between metal materials and high performance intermediate coat or topcoat. The incorporated active anti-corrosion additives boast exceptional corrosion inhibition properties in industrial and marine environments.

ADVANTAGES

- High film density, excellent compactness
- Superior adhesion to metal substrate and overlapping membrane
- Strong sealing ability
- Outstanding corrosion protection
- Fast curing at room temperature
- Exceptional durability and longevity

FIELD OF USE

This polyurethane primer can be successfully applied on a broad range of metallic substrates in the following :

- Iron or steel
- Hot-dip galvanised steel
- Stainless steel
- Aluminum or anodized aluminum
- Copper, bronze, brass
- Tin

* For application to other substrates or scopes of use, please contact our technician for further information.

PRACTICAL APPLICATION

Our primer is recommended for all metal structures and tie-ins, including steel tanks, piping, pipe racks, drain bowls, metal machinery components with large linear thermal expansion, or edge metal terminations.

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TECHNICAL CHARACTERISTICS

Component Properties

	Component A	Component B
Type	Base	Hardener
Composition	Modified MDI Polymer	Epoxy Resin, Anti-corrosion Pigment
Consistency	Liquid	Fluid
Color	Yellowish	Red Oxide
Weight	18 kg	18 kg
Packaging	Metal Barrel	Metal Pail

Physical Properties

The parameters are given under specific test conditions in accordance with the requirements specified in the Q/YXTA 005-2023 standards.

Technical Measurement	Performance
Impact Resistance	50 cm
Mandrel Bending Test	2 mm
Adhesion Strength (Cross-cut Test)	Class 0
Bond Strength (to Steel Base)	13 MPa
Bond Strength (to Polyurea Topcoat)	9 MPa

Chemical Properties

The results are performed under lab controllable conditions. These values may vary based on the application, climatology, or substrate conditions.

Technical Measurement	Performance
A/B Ratio (by weight)	1:1
Solids Content	56.1%
Spreading Rate (Theoretical)	0.11 kg/m² (at 50 μm dry film thick)
Dry Film Thickness (DFT)*	20~40 μm
Pot Life	1 hour (@ 25 ℃, RH 55%)
Tack-free Time	0.2 hours
Dry-through Time	0.3 hours
Overcoat Intervals	2~48 hours

*Actual required DFT may vary in certain applications, please contact us for technical clarification.

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Chemical Resistance

The results are performed under lab controllable conditions. These values may vary based on the application, climatology, or substrate conditions.

Chemical Substance	Concentration	Contact Time	Rusting	Blistering	Flaking
Saltwater (NaCl)	3%	168 h	No	No	No
Salt Spray (NaCl)	50g/L	240 h	No	No	No

Notice: The technical data contained herein are true and accurate to the best of our knowledge. Published technical data are subject to change without prior notice. Test report issued by the third-party accredited laboratory is available upon request.

APPLICATION INSTRUCTIONS

Surface Preparation

All surfaces to be coated must be dry, clean and free from contamination. To ensure proper adhesion, rusted areas must be treated by an abrasive blast to SA 2½ in accordance with international standard ISO 8501:2007 and SSPC-SP10. Alternatively, thorough manual or mechanical rust removal is achieved as per ST2-ISO 8501-1/ SSPC SP2 or SP3. A sharp angular profile of 50-70 microns is recommended. Substrate temperature during application should be at least 3°C (5°F) above dew point.

Mixing

Thoroughly premix component B prior to use. Then mix component A with the component B in the indicated mixing ratio till homogenous mixture is obtained.

Equipment

Our polyurethane primer can be applied by brush, roller, air sprayer, and airless sprayer. All tools should be cleaned immediately after use.

STORAGE

Store the product in a dry, ventilated, covered area at temperatures between 5˚C and 35˚C. Protect from heat, frost and direct sunlight. The shelf life is 12 months from the date of production under suitable storage conditions in its original sealed packing. Once open, use it immediately. Opened containers can be resealed, but the material shelf life will ultimately shorten.

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SAFETY PRECAUTIONS

Carefully read and follow all instructions on the safe handling and disposal of chemical products.

- **Warning:** This product contains organic solvent, which may cause skin irritation and inhalation can be toxic. Avoid contact with eyes and skin.
- **Eye protection:** Wear safety goggles to prevent splashing and exposure to particles in the air. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **Skin protection:** Wear suitable protective clothing and gloves. In case of skin contact, wash with thoroughly soap and plenty of water. Get medical attention if irritation develops or persists.
- **Respiratory protection:** Adequate ventilation of the working area is recommended. When spraying, use an air-purifying respirator to protect the respiratory tract.
- **Fire prevention:** This product is flammable. In case of fire, blanket flames with foam, carbon dioxide or dry chemicals.
- **Waste disposal:** The product is hazardous for aquatic life, do not dispose of the product down the drain. Follow and observe any applicable local or national laws and regulations.

For further and complete information about the safe use of our product, please refer to the latest version of our Material Safety Data Sheet (MSDS).

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