Protective & Marine Coatings
PRODUCT DATA SHEET

COROTHANE™ ZINC PUR
1-PACK POLYURETHANE ZINC PRIMER

Revised 11/2026 Issue 2

PRODUCT DESCRIPTION

A 1-pack moisture-curing polyurethane zinc primer.
Low solvent content according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
- Fast curing
- Robust and durable
- Suitable for application at low temperatures and/or high air humidity
- Very good corrosion protection

RECOMMENDED USE

Can be used as a zinc primer coat in combination with Corothane™ coatings for the protection of steel surfaces.

PRODUCT TECHNICAL DATA

Volume Solids: 65 ± 2% (ISO 3233-3)

Weight Solids: 89 ± 2%

VOC: 308 g/l determined practically in accordance with Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
294 g/l calculated from formulation to satisfy EC Solvent Emissions Directive.
105 g/kg calculated from formulation to satisfy EC Solvent Emissions Directive (UK).

Colours: Tinted red, material no. 689.04

Flash Point: 45°C.

Cleaner/Thinner: Thinner S (for cleaning)
Thinner S for thinning with max. 5% to adapt the viscosity.
Thinning will affect VOC compliance, sag tolerance and dry film thicknesses.

Pack Size: Single component material:
30 kg (10.7 litre).
Volume will vary with colours and density.

Density: 2.8 kg/l (may vary with colours).

Shelf Life: 6 months from date of manufacture, stored in originally sealed containers in a cool and dry environment.

Recommended Application Methods:
Airless Spray, Conventional Spray and Brush

Typical Thickness:

Recommended Spreading Rate Per Coat

	Typical	Maximum Sag
Dry	80 µm	150 µm
Wet	123 µm	231 µm
Theoretical Consumption*	0.345 kg/m² 0.123 l/m²	
Theoretical Coverage*	2.90 m²/kg 8.13 m²/l	

* This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment.

Film thickness will vary depending on actual use and specification.
Apart from small areas the dry film thickness of Corotane® Zinc PUR should not exceed 150 µm per coat.

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AVERAGE DRYING TIMES

For 80 µm Dry Film Thickness:

	+ 20°C
Dry to handle (Drying Stage 6*)	4 hours
To Recoat	4 hours

*ISO 9117

Maximum recoat time is 3 months. Prior to further applications all contamination must be removed. In the case of extended recoating times consult Sherwin Williams customer service..

Final cure: 1 week, depending on film thickness and temperature.

These figures are given as a guide only. Factors such as air movement, film thickness and humidity must also be considered.

APPROVALS & ENDORSEMENTS

- Approved according to German Standard 'TL KOR-Stahlbauten', Blatt 89.
- Tested and approved by the German Federal Waterways Engineering and Research Institute (BAW).
- Tested according to NORSOK M-501, rev. 6, system No. 1.

SURFACE PREPARATION

Ensure surfaces to be coated are clean, dry and free from all surface contamination such as oil, grease, dirt and corrosion products to achieve satisfactory adhesion.

For contaminated surfaces we recommend to clean with Cleaner Wash.

Steel surfaces shall be blast-cleaned to Sa 2½ according to ISO 8501-1 (ISO 12944-4).

MIXING

The material is supplied ready for use; stir thoroughly prior to application.

Attention, risk of injuries. Container may be under pressure. Lid may come off unexpectedly. Prior to opening reduce pressure, e.g. by piercing the lid.

During mixing and handling of the materials always wear protective goggles, suitable gloves and other protective clothing.

APPLICATION CONDITIONS

Substrate temperature shall be above 0°C and at least 3°C above the dew point. The surface must be dry and free from ice.

Material temperature shall be above + 5°C.

Relative air humidity shall be at least 30% and below 98%.

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for satisfactory application characteristics. Always purge spray equipment before use with listed cleaner. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Airless Spray

Unit: Efficient airless equipment

Tip Size: 0.38 – 0.53 mm (0.015 – 0.021 inch)

Fan Angle: 40° - 80°

Operating Pressure: min. 180 bar (2600 psi)

The airless spray details given above are intended as a guide only.

Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent satisfactory atomisation.

As conditions will vary from job to job, it is the applicators responsibility to ensure that the equipment in use has been set up to give the best results.

If in doubt consult Sherwin-Williams customer service.

Conventional Spray

Atomising Pressure: 3 - 4 bar (43 - 60 psi)

Tip Size: 1.5 – 2.0 mm (0.06 – 0.08 inch)

Brush

Brush application is suitable.

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RECOMMENDED SYSTEMS

Steel

1 x Corothane™ Zinc PUR

1-2 x Corothane™ PUR-1 or Corothane™ PUR SW

The coating system is compatible with a wide range of Sherwin-Williams Acrolon® topcoats.

Overcoatable with Corothane™ coatings provided the surface to be coated is clean, dry and free from contamination.

ADDITIONAL NOTES

Drying times and curing times should be considered as a guide only.

Chemical resistance:

Resistant to weathering, water and mechanical wear.

Temperature resistance:

Dry heat up to + 150°C, short term up to + 180°C.

Increased humid ambient temperature up to approx. + 60°C.

In case of higher temperatures consult Sherwin-Williams customer service.

Numerical values quoted for physical data may vary slightly from batch to batch.

HEALTH & SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Whilst all statements made about our products (whether in this data sheet or otherwise) are correct and accurate to the best of our knowledge, we have no control over the quality or the condition of the substrate, the application conditions or the many other factors affecting your use and application of our product.

The appropriateness of the product under the actual conditions of application or intended use must be determined exclusively by you. The content of this document, and of any oral or written statements already made or to be made in relation to the subject matter of this document, including any suggestions as to appropriate products and any proposed application methods, technical details and other product information represent only test results or experience obtained under controlled or defined circumstances, and is therefore provided for general information purposes only.

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