# **COROTHANE™ PUR SW**

1-PACK TAR-FREE POLYURETHANE COAT

Revised 11/2025 Issue 2

#### PRODUCT DESCRIPTION

A high abrasion resistant, moisture-curing, 1-pack coating based on polyurethane.

Low solvent content according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

- · Tough-hard, robust
- Early exposure to water
- Suitable for application at low temperatures and high relative air humidity

#### RECOMMENDED USE

Can be used as a heavy-duty coating system for the corrosion protection of steel in contact with water, e.g. hydraulic steel structures, chemical industry, harbour and lock installations, etc.

Especially suitable for refurbishment of old black coatings (e.g. coal tar pitch and tar epoxy coatings).

#### PRODUCT TECHNICAL DATA

Volume Solids: 72 ± 2% (ISO 3233-3)

Weight Solids: 80 ± 2%

**VOC:** 280 g/l determined practically in accordance with

Protective Coatings Directive of German Paint

Industry Association (VdL-RL 04).

279 g/l calculated from formulation to satisfy

EC Solvent Emissions Directive.

199 g/kg calculated from formulation to satisfy

EC Solvent Emissions Directive (UK).

Colours: Black, redbrown, approx. RAL 7032, approx. RAL

9002.

Slight colour deviations are possible due to raw

material characteristics.

Corothane™ PUR SW tends to chalking and yellowing when frequently exposed to weathering. In case of higher requirements an additional 2-pack PU topcoat e. g. Acrolon® EG-4 or Acrolon® EG-5 is

recommended.

Flash Point: 37°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.

Note: To ensure complete curing, only the recommended Thinner must be used exclusively. Other Thinners may lead to curing defects.

Pack Size: Single component material:

15 kg (10.7 litre)

Volume will vary with colours and density.

**Density:** 1.4 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, Brush and Roller

Typical Thickness:

**Recommended Spreading Rate Per Coat** 

|                          | Typical                   | Maximum Sag |
|--------------------------|---------------------------|-------------|
| Dry                      | 200 μm                    | 400 μm      |
| Wet                      | 278 μm                    | 556 µm      |
| Theoretical Consumption* | 0.389 kg/m²<br>0.278 l/m² |             |
| Theoretical Coverage*    | 2.57 m²/kg<br>3.60 m²/l   |             |

<sup>\*</sup> 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™ PUR SW should not exceed 400 µm per coat.

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#### **AVERAGE DRYING TIMES**

#### For 200 µm Dry Film Thickness:

|               | + 20°C  |
|---------------|---------|
| Dry to handle | 4 hours |
| To Recoat     | 4 hours |

Maximum recoat time is 6 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**

- Tested and listed by the German Federal Waterways Engineering and Research Institute (BAW).
- Tested according to NORSOK M501, 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)

#### Old coatings

In case of well adhering old coatings only thorough cleaning is sufficient. If necessary the adhesion of the maintenance coat may be increased by sweep blasting of the old coating. Remove loose particles. In case of exposure to submersion, condensation and splash water damaged areas must be derusted to PSa 2½. In case of exposure to weathering surface preparation to PSt 3 is sufficient. Application of a trial area is strongly recommended.

#### **MIXING**

The material is supplied ready for use; stir thoroughly with a mechanical paint mixer prior to application.

Opened units must be used within one day.

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

#### **APPLICATION CONDITIONS**

Substrate temperature shall be above  $0^{\circ}\text{C}$  and at least  $3^{\circ}\text{C}$  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: 0.43 - 0.69 mm (0.017 - 0.027 inch)

Fan Angle: 50° - 80°

Operating Pressure: min. 180 bar (2600 psi)

Spray hoses: Ø 3/8 inch (10 mm)

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.

#### **Brush and Roller**

The coating is suitable for brush and roller application. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

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#### **RECOMMENDED SYSTEMS**

#### Steel

1 x Corothane™ Zinc PUR 2-3 x Corothane™ PUR SW

#### Maintenance coating on steel

Touch up with
1 x Corothane™ PUR-1
1-2 x Corothane™ PUR SW

## **ADDITIONAL NOTES**

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

#### Chemical resistance:

Resistant to freshwater, brackish and salt water, neutral salts, mineral and fuel oils, fat, oils, detergents etc.

#### Temperature resistance:

Dry heat up to + 100°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.

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