



DURA-PLATE® POXICOLOR SW N

EPOXY COATING FOR HYDRAULIC STEEL STRUCTURES

Revised 07/2023 Issue 1

PRODUCT DESCRIPTION

A mechanically resistant 2-pack epoxy coating with low solvent content.

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

- High film thickness up to 200 µm per coat
- Tough, hard and abrasion resistant
- Suitable for cathodic protection systems
- Quick curing
- Norsok approved

RECOMMENDED USE

Can be used as a corrosion protection coating system for hydraulic steel structures (e.g. flood gates, steel sheet piles, etc.), where a mechanically resistant coating is required.

Tough hard, easily applied high build system.

Also suitable as a fast curing single layer system of low solvent content for the corrosion protection of steel constructions (in shop application).

PRODUCT TECHNICAL DATA

Volume Solids: 82 ± 2% (ISO 3233-3)

Weight Solids: 90 ± 2%

VOC: 166 g/l determined practically in accordance with Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
160 g/l calculated from formulation to satisfy EC Solvent Emissions Directive.
104 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.
Dura-Plate SW N tends to chalking and yellowing if exposed to weathering.
In case of higher requirements an additional Acrolon® topcoat is recommended.

Flash Point: Base: 52°C, Hardener: >101°C.

Cleaner/Thinner: Cleaner 26 (for cleaning).
Thinner S for thinning with max. 3% to adapt the viscosity.
Thinning will affect VOC compliance, sag tolerance and dry film thicknesses.

Pack Size: A two component material supplied in separate containers to be mixed prior to use:
15 kg (9.3 litre) unit when mixed.
Volume will vary with colours and density.

Mixing Ratio: 90 parts base to 10 parts hardener by weight.

Density: 1.6 kg/l (may vary with colours).

Shelf Life: 2 years 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	244 µm	488 µm
Theoretical Consumption*	0.390 kg/m ² 0.244 l/m ²	
Theoretical Coverage*	2.56 m ² /kg 4.10 m ² /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.

Pot Life:

+ 20°C	+ 30°C
1 hour	45 min

Pot life is dependent on temperature and volume.



DURA-PLATE® POXICOLOR SW N

EPOXY COATING FOR HYDRAULIC STEEL STRUCTURES

Revised 07/2023 Issue 1

AVERAGE DRYING TIMES

For 200 µm Dry Film Thickness:

	+ 5°C	+ 10°C	+ 20°C	+ 40°C
Dry to handle (Drying Stage 6*)	30 hours	20 hours	8 hours	3 hours
To Recoat	30 hours	20 hours	8 hours	3 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 at + 20°C, 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 and approved according to Norsok M-501, edition 6, system no. 7A and 7B.

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.

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

Average surface profile Rz ≥ 50 µm.

MIXING

Stir component A very thoroughly using a mechanical paint mixer (start slowly, then increase up to approx. 300 rpm). Add component B carefully and mix both components very thoroughly (including sides and bottom of the container). Mix for at least 3 minutes until a homogeneous mixture is achieved. We recommend to fill the mixed material into a clean container and mix again shortly as described above to avoid incorrect mixing. 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.

Material temperature shall be above + 5°C.

Relative air humidity shall be below 85%.

The surface must be dry and free from ice.

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 – 0.48 mm (0.019 – 0.021 inch)

Fan Angle: 40° - 80°

Operating Pressure: min. 180 bar (2600 psi)

Spray hoses: Ø ¾ inch (10 mm), max. 20 m
+ 2 m with reduced Ø of ¼ inch (6 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.



DURA-PLATE® POXICOLOR SW N

EPOXY COATING FOR HYDRAULIC STEEL STRUCTURES

Revised 07/2023 Issue 1

RECOMMENDED SYSTEMS

Steel

1-3 x Dura-Plate® Poxicolor SW N.

In case of filigree constructions an additional application is recommended.

If necessary Zinc-Clad® R can be used as primer for steel, Macropoxy® EG-1 Plus can be used as primer for hot-dip galvanized or stainless steel.

ADDITIONAL NOTES

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

Epoxy Coatings - Tropical Use

Epoxy coatings at the time of mixing should not exceed a temperature of 35°C. Use of these products outside of the pot life may result in inferior adhesion properties even if the materials appear fit for application. Thinning the mixed product will not alleviate this problem. If the air and substrate temperatures exceed 40°C and epoxy coatings are applied under these conditions, paint film defects such as dry spray, bubbling and pinholing etc. can occur within the coating.

Chemical resistance:

Resistant to industrial and marine environments, fresh-, brackish- and salt water, neutral salts, mineral oil and heating oil, grease and oils, detergents etc.

Temperature resistance:

Dry heat up to approx. + 100°C.

Increased humid ambient temperature and warm water up to approx. + 40°C.

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.

Unless we agree specifically in writing to do so, we will not be liable to you for any loss or damage whether in contract, tort (including negligence), breach of statutory duty, misrepresentation, misstatement or otherwise, arising under or in connection with this document or such statements.

We disclaim any express or implied representations, warranties or guarantees (including any implied warranty of merchantability or fitness for a particular purpose), though nothing in this disclaimer excludes or limits our liability for death or personal injury arising from our negligence, or our fraud or fraudulent misrepresentation, or any other liability that cannot be excluded or limited by law.

All products supplied and technical advice given are subject to our Standard Terms and Conditions of Sale which you should request a copy of and review carefully.

This document may be modified and updated from time to time, and is uncontrolled once printed. It is the users responsibility to ensure they are using the most up to date version – this can be found at: www.sherwin-williams.com/protectiveEMEA.

If this datasheet has been translated, then it has been done using the English version as the source. In case of any queries, please refer to the master English version which can be found at: www.sherwin-williams.com/protectiveEMEA.