Protective & Marine Coatings
PRODUCT DATA SHEET

DURA-PLATE® 138 A

CONDUCTIVE EPOXY COATING, 100% VOLUME SOLIDS

Revised 07/2023 Issue 1

PRODUCT DESCRIPTION

A 2-pack epoxy coating for corrosion protection of steel with high physical strength, good abrasion and impact resistance.
Solvent free according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

- High chemical resistance to flammable and non-flammable liquids, as well as a wide range of chemicals
- Approved also for biofuels containing hydrocarbon fuels
- Conductive
- High diffusion resistance
- Very good adhesion to steel

RECOMMENDED USE

Can be used as a internal lining of tanks, containers, silos, secondary containment structures and pipelines.

PRODUCT TECHNICAL DATA

Volume Solids: 100 ± 2% (ISO 3233-3)

Weight Solids: 100 ± 2%

VOC: 0 g/l determined practically in accordance with Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
189 g/l calculated from formulation to satisfy EC Solvent Emissions Directive.
145 g/kg calculated from formulation to satisfy EC Solvent Emissions Directive (UK).

Colours: Blackgrey (approx. RAL 7021)

Flash Point: Base: >62°C, Hardener: >112°C.

Cleaner/Thinner: Cleaner 26 (for cleaning).
Clean spills, tools and spatters immediately with Cleaner 26.
Do not thin Dura-Plate® 138 A.

Pack Size: A two component material supplied in separate containers to be mixed prior to use:
11.8 kg (9 litre) unit when mixed.
Volume will vary with colours and density.

Mixing Ratio: 100 parts base to 31 parts hardener by weight.
100 parts base to 39 parts hardener by volume.

Density: 1.3 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	500 µm	1000 µm
Wet	500 µm	1000 µm
Theoretical Consumption*	0.650 kg/m² 0.500 l/m²	
Theoretical Coverage*	1.54 m²/kg 2.00 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.

Pot Life:

+ 20°C	+ 30°C
20 min	10 min

Pot life is dependent on temperature and volume.

Protective & Marine Coatings
PRODUCT DATA SHEET

DURA-PLATE® 138 A

CONDUCTIVE EPOXY COATING, 100% VOLUME SOLIDS

Revised 07/2023 Issue 1

AVERAGE DRYING TIMES

For 300-1000 µm Dry Film Thickness:

	+ 20°C
Dry to touch	4 hours
Foot Traffic	12 hours

Maximum recoat time is 2 days at 20°C. Prior to further applications all contamination must be removed. In the case of extended recoating times the surface must be sweep-blasted.

Final cure: Full mechanical and chemical resistance after 7 days at + 20°C.

For curing procedure there is no need of air ventilation.

These figures are given as a guide only.

APPROVALS & ENDORSEMENTS

- It is approved by the building authorities of German DIBt for the internal lining of steel tanks designed for the storage of flammable liquids.
- Monitored by 'KIWA NL' according to 'BRL-K 779' as certified internal lining of steel tanks designed for the storage of flammable liquids.

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.

Removal of welding sputter, grinding of welding seams and welding seam overlaps in accordance with DIN EN 14879-1.

Steel surfaces 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 an 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 + 8°C and at least 3°C above the dew point.

Material temperature shall be above + 20°C.

Relative air humidity shall be below 80%.

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.

Airless Spray

Unit: Efficient airless equipment (capacity ≥ 18 l/min)

Tip Size: 0.48 – 0.58 mm (0.019 – 0.023 inch)

Fan Angle: 40° - 80°

Operating Pressure: min. 200 bar (2900 psi)

Spray hoses: Ø ⅜ inch (10 mm), max. 20 m
+ 2 m with reduced Ø of ¼ inch (6 mm)

Temperature of material and equipment at least + 20°C. Remove sieves.

Pump directly (without connected suction hose).

At lower temperatures insulation of the hose and the use of an inline heater is recommended; particularly when long hoses are used.

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

Suitable only for the repair of small areas or to precoat edges.

Repair

- Apply as supplied
- Suitable only for the repair of small areas

Clean and prepare damaged areas by sanding or sweep blasting of areas to be coated and ensure thorough removal of dust. As soon as possible the cold mixed material should be applied by trowel.

Porosity test

Due to the electrical conductivity of the coating, this may only be assessed visually.

Protective & Marine Coatings
PRODUCT DATA SHEET

DURA-PLATE® 138 A

CONDUCTIVE EPOXY COATING, 100% VOLUME SOLIDS

Revised 07/2023 Issue 1

RECOMMENDED SYSTEMS

Steel, stainless steel and aluminium
1 x Dura-Plate® 138 A (min. 500 µm)

(technical film thickness range: min. 300 µm up to max. 1000 µm, NDFT depends on stored chemicals)

ADDITIONAL NOTES

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

Chemical resistance:
Resistant to various cargo. Consult Sherwin-Williams.

Temperature resistance:
Dry heat up to approx. + 100°C.
In case of higher temperatures consult Sherwin-Williams customer service.

Electrical resistance:
≤ 1 x 10^8 Ω

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.