Protective & Marine Coatings
PRODUCT DATA SHEET

DURA-PLATE® 2107 HS

HOT SPRAY 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).

- Excellent resistance to water and the spillage of a wide range of chemicals, flammable and non-flammable liquids
- Root resistant coating and resistance to microbial degrade
- Resistant to biogas and natural gases - consequently no softening of the coating when buried
- Very good adhesion to steel surfaces
- Particularly economic to use, owing to its single-coat application
- Excellent long term service record

RECOMMENDED USE

Can be used as a corrosion protection coating for steel. Mainly used for the protection of external surfaces of buried steel tanks and pipes.

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).
15 g/l calculated from formulation to satisfy EC Solvent Emissions Directive.
10 g/kg calculated from formulation to satisfy EC Solvent Emissions Directive (UK).

Colours: Grey, approx. RAL 7009 (component A: black / component B: yellow)

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

Cleaner/Thinner: Cleaner HS (for cleaning).
Clean spills, tools and spatters immediately with Cleaner HS.
Do not thin Dura-Plate® 2107 HS.

Pack Size: A two component material supplied in separate containers to be applied with special airless hot-spray equipment:
Dura-Plate® 2107 HS: 200 kg (119.7 litre) and 25 kg (14.9 litre) base.
Dura-Plate® 2100 HS: 200 kg (137.9 litre) and 25 kg (17.2 litre) hardener.
Volume will vary with colours and density.

Mixing Ratio: 100 parts base to 50 parts hardener by weight.
1.8 parts base to 1 parts hardener by volume.

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:
2-Pack Airless Hot-Spray

Typical Thickness:

Recommended Spreading Rate Per Coat

	Typical	Maximum Sag
Dry	1000 µm	1500 µm
Wet	1000 µm	1500 µm
Theoretical Consumption*	1.600 kg/m² 1.000 l/m²	
Theoretical Coverage*	0.63 m²/kg 1.00 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	+ 80°C
20 min	2 min

Pot life is dependent on temperature and volume.

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AVERAGE DRYING TIMES

For 1000 µm Dry Film Thickness:

	+ 20°C
Dry to touch	3 hours
Foot Traffic	16 hours

Maximum recoat time is 4 hours 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.

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

APPROVALS & ENDORSEMENTS

- Approved for the external lining of buried LPG-pressure tanks, in accordance with EN 12542 (respectively former DIN 4681-3)
- Certified for the external lining of underground steel storage tanks, in accordance with KIWA Evaluation Guideline BRL-K 768

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

Application exclusively with 2-pack hot-spray airless equipment. Stir both components separately prior to application. During mixing and handling of the materials always wear protective goggles, suitable gloves and other protective clothing.

APPLICATION CONDITIONS

Substrate temperature shall be above + 10°C and at least 3°C above the dew point.

Material temperature shall be above + 65°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.

2-Pack Airless Hot-Spray

Unit: Efficient hot-spray airless equipment

Tip Size: 0.53 – 0.58 mm (0.021 – 0.023 inch)

Fan Angle: 40° - 60°

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.

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

With a suitable high-voltage tester, e.g. Fischer-POROSCOPE® HV20 with flat electrode (rubber tongue). Test voltage 15 Volt per 1 µm coating thickness.

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RECOMMENDED SYSTEMS

Steel
1 x 1000 µm Dura-Plate® 2107 HS

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. + 120°C.
Buried components approx. + 80°C.
In case of higher temperatures consult Sherwin-Williams customer service.

Mechanical resistance:
Pull-off-test for adhesion >15 MPa (according to ISO 4624).
Buchholz hardness ~ 100 (according to ISO 2815).

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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