



ELASTOMASTIC™ AIRLESS

SOLVENT-FREE POLYURETHANE LIQUID PLASTIC

Revised 07/2023 Issue 1

PRODUCT DESCRIPTION

- A thick-layer 2-pack polyurethane liquid plastic with 100% volume solids.
Solvent free according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
- High performance corrosion protection
 - Mechanical, tough elastic and impact resistant
 - Quick utilisation due to short curing time
 - Ballast can be filled in after 24 hours
 - Very good adhesion on steel

RECOMMENDED USE

Can be used as a high-quality coating e.g. for railway bridges, curbs and inside of ballast troughs.
For application of thick-layer, wear-resistant, highly mechanically resistant and at the same time chemically resilient corrosion protection systems with a short hardening time for earlier operation and use.

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). 0 g/l calculated from formulation to satisfy EC Solvent Emissions Directive. 0 g/kg calculated from formulation to satisfy EC Solvent Emissions Directive (UK). |
| Colours: | Dust grey (approx. RAL 7037) |
| Flash Point: | Base: > 101°C, Hardener: 217°C. |
| Cleaner/Thinner: | Cleaner 26 or Tinner P (for cleaning) Thoroughly clean tools and equipment immediately after use. Do not thin Elastomastic™ Airless |
| Pack Size: | A two component material supplied in separate containers to be mixed prior to use: 20 kg (16.6 litre) unit when mixed. Volume will vary with colours and density. |
| Mixing Ratio: | 100 parts base to 40 parts hardener by weight. 2.5 parts base to 1 part hardener by volume. |
| Density: | 1.2 kg/l (may vary with colours). |
| Shelf Life: | 18 months from date of manufacture, stored in originally sealed containers in a cool and dry environment. The components are very sensitive to moisture and must be protected against the exposure to rain and moisture. |

Recommended Application Methods:
Airless Spray, Brush and Roller

Typical Thickness:

| | Recommended Spreading Rate Per Coat | | |
|--------------------------|---|---|-------------|
| | Typical | | Maximum Sag |
| Dry | 1000 µm | 4000 µm | 1000 µm |
| Wet | 1000 µm | 4000 µm | 1000 µm |
| Theoretical Consumption* | 1.200 kg/m ² 1.000 l/m ² | 4.800 kg/m ² 4.000 l/m ² | |
| Theoretical Coverage* | 0.83 m ² /kg 1.00 m ² /l | 0.21 m ² /kg 0.25 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 |
| 25 min | 10 min |

Pot life is dependent on temperature and volume.



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AVERAGE DRYING TIMES

For 1000 µm Dry Film Thickness:

| | + 5°C | + 15°C | + 20°C | + 30°C |
|-----------------------|----------|----------|----------|----------|
| Dry to handle | 24 hours | 12 hours | 8 hours | 6 hours |
| Walkable | 24 hours | 12 hours | 8 hours | 6 hours |
| Dust dry | 10 hours | 6 hours | 4 hours | 2 hours |
| Mechanically loadable | 60 hours | 36 hours | 24 hours | 12 hours |

Minimum and maximum recoat intervals (at + 20°C)

Between Macropoxy® HM Primer Plus and Elastomastic™ Airless:

Min. 1 day

Max. 1 month

Prime once again with 1 x Macropoxy® HM Primer Plus in case of extended recoating times.

Between 1st and 2nd layer of Elastomastic™ Airless:

Max. 2 days

In the case of extended recoating times the surface must be grinded or sweep-blasted. Prior to further applications all contamination must be removed.

Final cure: 1 week at + 20°C, depending on film thickness and temperature. Ballast can be placed after 24 hours.

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 the German Railway Standard DBS 918084 (Blatt 84) for riveted and welded steel bridges with ballast (ballast troughs).
- For the use as an anti-slip-finish according to DIN 51130 a test report is available (anti-slip factor R 13).

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 (medium (G)), according to ISO 8503-2.

For ballast troughs according to DBS 918084 surface profile Rz ≥ 85 µm (coarse (G)) is required.

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 + 25°C for spray application and above + 10°C for manual application by brush or roller.

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.

Airless Spray

Unit: Efficient airless equipment (pressure ratio > 65: 1)

Tip Size: 0.48 – 0.69 mm (0.019 – 0.027 inch)

Fan Angle: 40° - 80°

Operating Pressure: min. 200 bar (2900 psi)

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

At low temperatures we recommend the insulation of the spray hose as well as the use of a continuous flow heater, particularly in case of long spray hoses.

The single components should be stored at min. + 20°C. Apply Elastomastic™ Airless wet on wet in several steps till the recommended dry film thickness (1 - 5 mm) is achieved.

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

Possible on small areas or for stripe coatings.

Repair

Smaller areas of imperfections, holidays or damaged coating can be spot repaired within 2 days. Upon longer intervals clean and prepare damaged areas by sanding or sweep blasting and ensure thorough removal of dust prior to repair.

Elastomastic™ Airless can be used as repair coating for vertical and horizontal areas by adding 2 - 4% by weight Extender T (due to temperature).

Pot life of the repair coating is approx. 45 minutes for 1.5 kg at + 20°C.



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RECOMMENDED SYSTEMS

Steel

1 x Macropoxy® HM Primer Plus (optional)

1 - 2 x Elastomastic™ Airless

Anti-slip covering

1 x Macropoxy® HM Primer Plus (optional)

1 - 2 x Elastomastic™ Airless (2 - 3 mm) broadcast in excess with quartz sand 0.7 - 1.2 mm

Slip resistance classification: R 13 , Extrusion classification: V 10

Coating system for ballast troughs according to DBS 918084 (German Railway)

1 x 80 µm Macropoxy® HM Primer Plus (optional),

Horizontal surfaces: Layer thickness 4 mm

Apply Elastomastic™ Airless in 4 mm, consumption approx. 1.2 kg/m² per 1 mm dry film thickness.

Vertical surfaces: Layer thickness 2 mm

Apply Elastomastic™ Airless in two layers, 1 mm each by adding 2 - 3% w/w Extender T, consumption approx. 1.2 kg/m² per 1 mm dry film thickness.

ADDITIONAL NOTES

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

Chemical resistance:

Resistant to weathering, water, seawater, smoke, de-icing salts, acid and alkali vapours, oils, grease and short-term exposure to fuels and solvents.

Temperature resistance:

Dry heat up to + 150°C, short term up to + 200°C.

Increased humid ambient temperature up to approx. + 50°C.

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

An exposure to high temperatures can lead to colour changes.

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

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