Protective & Marine Coatings
PRODUCT DATA SHEET

ACROLON® EG-120

ACRYLIC POLYURETHANE TOPCOAT AND DIRECT TO METAL COATING

Revised 07/2023 Issue 1

PRODUCT DESCRIPTION

A low solvent containing 2-pack acrylic polyurethane topcoat.
By adding 1% w/w Acrolon® PUR Accelerator (see product data sheet for more information) a fast touch and through drying will be achieved.
Low solvent content according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

- High film thickness up to 120 µm per coat
- Excellent adhesion on steel, hot-dip galvanized steel and aluminium as a single layer coating
- Excellent weather resistance

RECOMMENDED USE

Can be used as a topcoat for the application direct on steel, hot-dip galvanized steel and aluminium.
Also recommended as a topcoat in combination with Zinc Clad®, Dura-Plate® or Macropoxy® high performance primers and intermediate coats.

PRODUCT TECHNICAL DATA

Volume Solids: 70 ± 2% (MIO), 70 ± 2% (MIO-free) (ISO 3233-3)

Weight Solids: 83 ± 2% (MIO), 80 ± 2% (MIO-free)

VOC: 260 g/l (272 g/l MIO shades) determined practically in accordance with Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
269 g/l (326 g/l MIO shades) calculated from formulation to satisfy EC Solvent Emissions Directive.
204 g/kg (272 g/kg MIO shades) calculated from formulation to satisfy EC Solvent Emissions Directive (UK).

Colours: RAL and MIO (EG) colour shades.
Slight colour deviations are possible due to raw material characteristics.

Flash Point: Base: 32°C, Hardener: 38°C.

Cleaner/Thinner: Cleaner 26 (for cleaning). Spraying equipment must be rinsed with Thinner EG before using Acrolon® EG-120.
Thinner EG for thinning with max. 5% 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:
RAL: 30 kg (23.0 litre) and 10 kg (7.7 litre) units when mixed.
MIO: 15 kg (9.3 litre) unit when mixed.
Volume will vary with colours and density.

Mixing Ratio: RAL: 85 parts base to 15 parts hardener by weight
4.3 parts base to 1 part hardener by volume*
MIO: 90 parts base to 10 parts hardener by weight
5.6 parts base to 1 part hardener by volume*

*Note:
The mixing ratio by volume varies depending on the colour shade. If in doubt, please contact Sherwin-Williams. We recommend only mixing complete units.
When part mixing, please use the mixing ratio by weight. Sherwin-Williams cannot be held responsible for mixing errors.

Density: 1.6 kg/l (MIO).
1.3 kg/l (MIO-free).
(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, Conventional Spray, Brush and Roller

Typical Thickness:

Recommended Spreading Rate Per Coat

MIO colour shade	Typical		Maximum Sag
Dry	80 µm	120 µm	240 µm
Wet	114 µm	171 µm	342 µm
Theoretical Consumption*	0.183 kg/m² 0.114 l/m²	0.274 kg/m² 0.171 l/m²	
Theoretical Coverage*	5.47 m²/kg 8.75 m²/l	3.65 m²/kg 5.83 m²/l	

RAL colour shade	Typical		Maximum Sag
Dry	80 µm	120 µm	240 µm
Wet	114 µm	171 µm	342 µm
Theoretical Consumption*	0.149 kg/m² 0.114 l/m²	0.223 kg/m² 0.171 l/m²	
Theoretical Coverage*	6.73 m²/kg 8.75 m²/l	4.49 m²/kg 5.83 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:

+ 10°C	+ 20°C	+ 30°C
3 hours	2 hours	1 hours

Pot life is dependent on temperature and volume.
By adding 1% w/w Acrolon® PUR Accelerator the pot life of the mixed material is approximately halved.

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AVERAGE DRYING TIMES

For 120 µm Dry Film Thickness:

	+ 5°C	+ 20°C	+ 40°C
Dry to handle (Drying Stage 6*)	25 hours	11 hours	3 hours
To Recoat	25 hours	11 hours	3 hours

For 120 µm Dry Film Thickness + adding 1% w/w Acrolon® PUR Accelerator:

	+ 10°C	+ 20°C
Dry to handle (Drying Stage 6*)	15 hours	5 hours
To Recoat	15 hours	5 hours

*ISO 9117

Maximum recoat time is 1 year. Prior to further applications all contamination must be removed. In the case of extended recoating times consult Sherwin Williams customer service.

Final cure: 1-2 weeks, 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

- Approved according to ISO 12944-6 on steel and hot-dip galvanized steel surfaces.
- Certificates according to ISO 12944-6, corrosivity categories C4 high and C5 high are available.

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 and weathered surfaces e.g. primed areas we recommend to clean with Cleaner Wash.

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

Hot-dip galvanized surfaces, stainless steel and aluminium shall be prepared by degreasing or, in case of permanent condensation, sweep blasting according to ISO 12944-4 with a non-ferrous blasting abrasive.

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 + 5°C (0°C by adding Acrolon® PUR Accelerator) and at least 3°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 below 85%.

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: 0.38 – 0.53 mm (0.015 – 0.021 inch)
Fan Angle: 40° - 80°
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.

Conventional Spray
Atomising Pressure: 3 - 5 bar (43 - 73 psi)
Tip Size: 1.5 – 2.5 mm (0.06 – 0.10 inch)

Brush and Roller
In order to achieve an attractive appearance in case of coatings containing micaceous iron oxide it is recommended to spray apply the last topcoat or to brush or roll on in one direction only to avoid streaking.

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
1-2 x Acrolon® EG-120
Also compatible with a wide range of Sherwin-Williams Macropoxy®, Dura-Plate® and Zinc Clad® epoxy primers and intermediate coats.

Hot-dip galvanized steel, stainless steel and aluminium
1 x Acrolon® EG-120.

Certain shades for example, yellows and reds may require additional coats to achieve full opacity.

ADDITIONAL NOTES

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

The application by brush and roller of the aluminium shade of Acrolon® EG-120 may result in an uneven finish and shade variation compared to spray application.

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

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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