Protective & Marine Coatings
PRODUCT DATA SHEET

ACROLON® ZP PRIMER

POLYURETHANE PRIMER COAT

Revised 07/2023 Issue 1

PRODUCT DESCRIPTION

A 2-pack polyurethane primer with active anti-corrosion pigments and low solvent content.
Low solvent content according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

- Very fast to overcoat with PU-coatings
- Good shock-proof and resistance to impact
- Fast curing even at low temperatures
- Tough elastic and hard, but non-brittle

RECOMMENDED USE

Can be used as a fast curing primer for steel in combination with Acrolon® high performance intermediate coats and topcoats.
Particularly suited for in shop application.

PRODUCT TECHNICAL DATA

Volume Solids: 62 ± 2% (ISO 3233-3)

Weight Solids: 78 ± 2%

VOC: 330 g/l determined practically in accordance with Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).
352 g/l calculated from formulation to satisfy EC Solvent Emissions Directive.
235 g/kg calculated from formulation to satisfy EC Solvent Emissions Directive (UK).

Colours: Tinted red, sand-yellow, light grey.

Flash Point: Base: 34°C, Hardener: 38°C.

Cleaner/Thinner: Thinner EG (for cleaning).
Thinner EG 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:
30 kg (20 litre) unit when mixed.
Volume will vary with colours and density.

Mixing Ratio: 92 parts base to 8 parts hardener by weight.
8 parts base to 1 part hardener by volume.

Density: 1.5 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	80 µm	240 µm
Wet	129 µm	387 µm
Theoretical Consumption*	0.194 kg/m² 0.129 l/m²	
Theoretical Coverage*	5.17 m²/kg 7.75 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.

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AVERAGE DRYING TIMES

For 80 µm Dry Film Thickness:

	+ 5°C	+ 10°C	+ 20°C	+ 30°C
Dry to handle (Drying Stage 6*)	4 hours	3.5 hours	3 hours	1.5 hour
To Recoat with PU-coats	4 hours	3.5 hours	3 hours	1.5 hour
To Recoat with EP-coats			12 hours	

*ISO 9117

Maximum recoat time is unlimited. Prior to further applications all contamination must be removed.

Final cure: 1 week, 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

System with Acrolon® EG-120 and Acrolon® ZP Primer is tested for contact areas of plan pre-strengthened screw connections.

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).

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 clothings.

APPLICATION CONDITIONS

Substrate temperature shall be above + 5°C and at least 3°C above the dew point.

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.

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.

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RECOMMENDED SYSTEMS

Steel
1 x Acrolon® ZP Primer
1-2 x Acrolon® ZP-1
1 x Acrolon® topcoat

ADDITIONAL NOTES

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

Mechanical resistance:
Highly resistant to transport and assembly stresses.

Chemical resistance:
Resistant to weathering, water, seawater, de-icing salts, acidic and alkali vapours, oils, grease and short-term exposure to fuels and solvents.
If in doubt Sherwin-Williams should be consulted.

Temperature resistance:
Dry heat up to + 120°C, short term up to + 150°C.
In case of higher temperatures consult Sherwin-Williams customer service.

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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