



# Protective & Marine Coatings

## MACROPOXY™ M902 SURFACE TOLERANT PRIMER

FORMERLY KNOWN AS EPIGRIP M902

Revised 06/2017 Issue 34

### PRODUCT INFORMATION

#### PRODUCT DESCRIPTION

Low temperature curing hi-build 2-pack epoxy brushing aluminium primer coating capable of curing down to 0°C

#### RECOMMENDED USE

For brush application onto hand or mechanically prepared surfaces and/or damp gingered surfaces giving excellent wetting and adhesion characteristics - see notes overleaf. Suitable for atmospherically exposed surfaces but not recommended for exposure to severe chemical environments. May be spray applied to blast cleaned surfaces. Recommended where low temperature curing is required or where rapid overcoating is necessary.

#### ENDORSEMENTS

BS476 Part 7 - Surface Spread of Flame Material - for details of substrate/scheme, Sherwin-Williams.  
Highways Agency Item No.115.  
Approved by MoD/DRA to Def Stan 80-134.  
Network Rail Item 7.1.5

#### RECOMMENDED APPLICATION METHODS

Airless Spray (blast cleaned surfaces only)  
Brush  
Roller

**Recommended Thinner:** No 5 (for thinning)  
No 9 or No 13 (for cleaning)

#### PRODUCT CHARACTERISTICS

**Flash Point:** Base : 47°C Additive : 30°C  
**% Solids by Volume:** 75 ± 4% (ASTM-D2697-91)  
**Pot Life:** 8 hours at 5°C 1½ hours at 23°C  
**Colour Availability:** Aluminium

#### VOC

219 gms/litre determined practically in accordance with UK Regulations PG6/23  
241 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive  
206gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

#### TYPICAL THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
125 microns	167 microns	6.0 m <sup>2</sup> /ltr*

\* 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.

#### PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray	Brush	Roller
<b>Dry</b>	125*	125	100
<b>Wet</b>	167	167	133

\* Maximum sag tolerance with overlap typically 233µm wet (175µm dry) by airless spray.

#### AVERAGE DRYING TIMES

	@ 5°C	@ 23°C
<b>To touch:</b>	5½ hours	3½ hours
<b>To recoat:</b>	6½ hours	4 hours
<b>To handle:</b>	16 hours	8 hours

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

#### RECOMMENDED BUILDCOAT

Macropoxy M905 Epoxy Undercoat/MIO

#### RECOMMENDED TOPCOATS

For overcoating with epoxy products (including self overcoating), the maximum recommended interval is 28 days at 23°C. For overcoating outside this interval, consult Sherwin-Williams technical support for advice. Where a high degree of gloss and colour retention is required overcoat with Acrolon C137V2, Acrolon C237, Acrolon 1850 and Acrolon 7300 within 7 days at minimum dft of 50 microns or in the case of Acrolon C750V2 overcoat within 4 days. These overcoating times refer to achievement of optimum adhesion at 23°C and will vary with temperature. For overcoating with alkyd systems consult Sherwin-Williams for advice.

#### PACKAGE

A two component material supplied in separate containers to be mixed prior to use.

**Pack Size:** 2 litre and 5 litre units when mixed.  
**Mixing Ratio:** 1 part base to 1 part additive by volume.  
**Weight:** 1.18 kg/litre.  
**Shelf Life:** 2 years from date of manufacture or 'Use By' date where specified.



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#### SURFACE PREPARATION

Manually prepared surfaces should be prepared to a minimum standard of St3 BS EN ISO 8501-1 : 2007 at the time of coating. Application to such surfaces should be by brush or roller where the mechanical action will aid adhesion.

Ensure surfaces to be coated are clean and free from all surface contamination for application onto damp surfaces, see additional note below.

For spray application, it is recommended that surfaces should be blast cleaned to Sa2½ BS EN ISO 8501-1 : 2007. Average surface profile in the range 50-75 microns.

#### APPLICATION EQUIPMENT

##### Airless Spray

Nozzle Size:	0.38mm (15 thou)
Fan Angle:	65°
Operating Pressure:	250kg/cm <sup>2</sup> (3550 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 with 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 Sherwin-Williams should be consulted.

##### Nozzle Size

Environmental legislation now requires paint to contain less solvent. When using high solids coatings like Macropoxy M902 surface tolerant primer, painters must use finer tips than previously to compensate for the natural tendency towards over-application and to help achieve good wet film formation.

##### Brush

The material is suitable for brush application.

##### Roller

The material is suitable for roller application.

#### APPLICATION CONDITIONS AND OVERCOATING

In conditions of high relative humidity, i.e. 80-85% good ventilation conditions are essential. Substrate temperature shall be at least 3°C above the dew point and always above 0°C.

Application at ambient air temperatures below 0°C is not recommended where there is a risk of ice formation on the substrate.

Development of satisfactory physical properties including hardness and abrasion resistance will be obtained within 24-48 hours at a temperature of 5°C. Optimum water and chemical resistance will be achieved when the material is fully cured.

If it is desired to overcoat outside the times stated on the data sheet, please seek advice of Sherwin-Williams.

#### ADDITIONAL NOTES

It is possible to apply Macropoxy M902 onto a damp substrate ( no running water or pooled water ) by brush application.

Ensure that the paint fully displaces any water on the substrate. For guidance please consult Sherwin-Williams. Drying times, curing times and pot life should be considered as a guide only.

The curing reaction of epoxies commences immediately the two components are mixed, and since the reaction is dependent on temperature, the curing time and pot life will be approximately halved by a 10°C increase in temperature and doubled by a 10°C decrease in temperature.

**Compatibility** - This product is fully compatible with Transgard TG115 ( Item 115 standard temperature grade ), and the two products may be interchanged within any specification requiring the use of Item 115, depending upon application conditions.

##### Epoxy Coatings - Colour Stability:

Variable colour stability is a feature of epoxy materials which tend to yellow and darken with age particularly when used on internal areas. Therefore any areas touched-up and repaired with the same colour at a later date may be obvious due to this colour change.

When epoxy materials are exposed to ultra-violet light a surface chalking effect will develop. This phenomenon results in loss of gloss and a fine powder coating at the surface which may give rise to colour variation depending on the aspect of the steelwork. This effect in no way detracts from the performance of the system.

Numerical values quoted for physical data may vary slightly from batch to batch.

#### HEALTH AND SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

#### WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.