



# Protective & Marine Coatings

# TRANSGARD™ TG116 EPOXY UNDERCOAT

Revised 08/2016 Issue 13

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

Two pack epoxy undercoat for abraded surfaces.

### RECOMMENDED USE

For application onto suitably primed surfaces, as an undercoat for use under suitable high performance finishes.

Recommended curing temperature above 10°C. Extended drying times will be observed at lower temperatures. Macropoxy M905 is recommended alternative for low temperature application and curing.

### ENDORSEMENTS

Highways Agency Item No.116.

### RECOMMENDED APPLICATION METHODS

Brush  
Airless Spray

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

### PRODUCT CHARACTERISTICS

<b>Flash Point:</b>	Base : 47°C	Additive : 24°C
<b>% Solids by Volume:</b>	75 ± 3% (ASTM-D2697)	
<b>Pot Life:</b>	3 hours at 15°C	2 hours at 23°C
<b>Colour Availability:</b>	Limited Range. Not colour stable, overcoat with suitable finish.	

**VOC**  
240 gms/litre determined practically in accordance with UK Regulations PG6/23  
250 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive  
167 gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

### RECOMMENDED THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
100 microns	133 microns	7.5 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

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

\* Maximum sag tolerance with overlap typically 300µm dry by airless spray and 140µm by brush.

### AVERAGE DRYING TIMES

	@ 15°C	@ 23°C
<b>To touch:</b>	6 hours	3 hour
<b>To recoat:</b>	12 hours	8 hours
<b>To handle:</b>	24 hours	16 hours

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

### RECOMMENDED PRIMERS

Transgard TG115

### 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 Transgard TG168 or TG169 within 7 days at a minimum dft of 50 microns. These overcoating times refer to achievement of optimum adhesion at 23°C and will vary with temperature.

### PACKAGE

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

<b>Pack Size:</b>	20 litre and 5 litre units when mixed.
<b>Mixing Ratio:</b>	9 parts base to 1 part additive by volume.
<b>Weight:</b>	1.58 kg/litre (may vary with shade).
<b>Shelf Life:</b>	2 years from date of manufacture or 'Use By' date where specified.



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### **SURFACE PREPARATION**

Ensure surfaces to be coated are clean, dry and free from all surface contamination.

### **APPLICATION EQUIPMENT**

#### **Airless Spray**

Nozzle Size	:	0.38 (15 thou)
Fan Angle	:	40°
Operating Pressure	:	155kg/cm <sup>2</sup> (2200 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.

**N.B.** Thinning will affect VOC compliance.

#### **Brush**

The material is suitable for brush application. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

### **APPLICATION CONDITIONS AND OVERCOATING**

Epoxy paints should preferably be applied at temperatures in excess of 10°C. Relative humidity should not exceed 90% and in these conditions good ventilation is essential. Substrate temperature should be at least 3°C above the dew point and always above 0°C.

At application temperatures below 10°C, drying and curing times will be significantly extended, and spraying characteristics may be impaired. Application at ambient air temperatures below 5°C is not recommended.

In order to achieve optimum water and chemical resistance, temperature needs to be maintained above 10°C during curing.

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

### **ADDITIONAL NOTES**

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 Macropoxy M905 (Item 116 low temperature curing grade), and the two products may be interchanged within any specification requiring the use of Item 116, 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 whether used on internal or external 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.

**Epoxy Coatings - Tropical Use:** Epoxy paints at the time of mixing should not exceed a temperature of 35°C. At this temperature the pot life will be approximately halved. Use of these products outside of the pot life may result in inferior adhesion properties even if the materials appear fit for application. Thinning the mixed product will not alleviate this problem.

The maximum air and substrate temperature for application is 50°C providing conditions allow satisfactory application and film formation. If the air and substrate temperatures exceed 50°C and epoxy coatings are applied under these conditions, paint film defects such as dry spray, bubbling and pinholing etc. can occur within the coating.

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.