



# Protective & Marine Coatings

# TRANSGARD™ TG169 ACRYLIC URETHANE FINISH

Revised 11/2017 Issue 10

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

A high performance fast drying acrylic urethane semi-gloss finish for use where long term exterior colour retention characteristics are required.

### RECOMMENDED USE

Material is suitable for use as final coat or coats in conjunction with epoxy or polyurethane based protective systems for new construction or maintenance purposes.  
Good tolerance to low temperature curing conditions.

### ENDORSEMENTS

Highways Agency Item No. 169

### RECOMMENDED APPLICATION METHODS

Airless Spray  
Conventional Spray  
Brush  
Roller

**Recommended Cleanser Thinner:** No. 5 ( for cleaning )  
No. 15 ( for thinning )

### PRODUCT CHARACTERISTICS

**Flash Point:** Base : 28°C Additive : 32°C  
**% Solids by Volume:** 54 ± 3% (ASTM-D2697-91)  
**Pot Life:** 5 hours at 15°C 3 hours at 23°C  
**Colour Availability:** White and limited range of colours.

#### VOC

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

### RECOMMENDED THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
50 microns	92 microns	10.8 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	Conventional Spray	Brush	Roller
<b>Dry</b>	50*	50	40	40
<b>Wet</b>	92	106	75	75

\* Maximum sag tolerance with overlap typically 230µm wet (125µm dry) by airless spray. The conventional spray details relate to the paint after thinning 15% with Cleanser/Thinner No. 15.

### AVERAGE DRYING TIMES

	@ 15°C	@ 23°C
<b>To touch:</b>	2½ hours	1½ hour
<b>To recoat:</b>	8 hours	6 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 TG112, TG121, M905, TG123, C123

### RECOMMENDED TOPCOATS

Not normally required, but indefinitely overcoatable with itself and other high performance topcoats.

### PACKAGE

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

**Pack Size:** 20 litre and 5 litre units when mixed.  
**Mixing Ratio:** 9 parts base to 1 part additive by volume.  
**Weight:** 1.62 kg/litre (may vary with shade).  
**Shelf Life:** 12 months 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 : 0.38mm (15 thou)  
Fan Angle : 80°  
Operating Pressure : 140kg/cm<sup>2</sup> (2000 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.

#### **Conventional Spray**

Nozzle Size : 1.27mm (50 thou)  
Atomising Pressure : 3.5kg/cm<sup>2</sup> (50 psi)  
Fluid Pressure : 0.7-1.0kg/cm<sup>2</sup> (10-15 psi)

The details of atomising pressure, fluid pressure and nozzle size are given as a guide. It may be found that slight variations of pressure will provide optimum atomisation in some circumstances according to the set up in use. Atomising air pressure depends on the air cap in use and the fluid pressure depends on the length of line and direction of feed i.e. horizontal or vertical.

Transgard TG169 may be conventionally sprayed if thinned 15% with Cleanser/thinner No. 15. Wet film thickness should be adjusted accordingly.

**NB:** 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.

#### **Roller**

The material is suitable for roller 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**

This material should preferably be applied at temperatures in excess of 10°C. In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature shall 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.

Storage at high temperatures will affect build properties. Numerical values quoted for physical data may vary slightly from batch to batch.

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

### **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.