



ACROLON 1850

PRODUCT TECHNICAL DATA

FULL DESCRIPTION	: ACROLON 1850 ISOCYANATE FREE TOPCOAT			
MATERIAL TYPE	: Isocyanate free - Two pack finish based on acrylic epoxy binder system.			
RECOMMENDED USE	: Finish coat for exterior exposed surfaces where retention of gloss is required, and the use of isocyanate products is precluded or undesirable. : Normally used in conjunction with epoxy primers and undercoats.			
RECOMMENDED APPLICATION METHODS	: Airless Spray	Brush		
	: Conventional Spray			
	: Thinning of up to 5% vol may be required for A/S and C/S application			
COLOUR AVAILABILITY	: White and full shade range.			
FLASH POINT	: Base : 34°C	Additive : 33°C		
% SOLIDS BY VOLUME	: 59 ± 3% (ASTM-D2697-91)			
V.O.C.	: 345 gms/litre determined practically in accordance with UK Regulations PG6/23 360 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive 252 gms/kilo content by weight from formulation, to satisfy EC SED			
TYPICAL THICKNESS	Dry film thickness : 200 microns	Wet film thickness 340 microns	Theoretical coverage 2.94 m ² /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#
	: Dry	75	75	150 - 200
	: Wet	125	125	255 - 340
	* Maximum sag tolerance typically 300µm dry by airless spray. # The actual thickness within the quoted range will depend on many variables including ambient conditions and operator expertise. To ensure full obliteration and maximum opacity, the appropriate undercoat or primer shade should be used.			
AVERAGE DRYING TIMES	At 15°C	At 23°C	At 35°C	
To touch	: 2 hours	1 hour	½ hour	
To recoat	: 6 hours	3 hours	2 hours	
To handle	: 12 hours	6 hours	4 hours	
	These figures are given as a guide only. Factors such as air movement and humidity must also be considered.			
RECOMMENDED THINNER	: Cleanser/Thinner No. 5			
RESISTANCE TO	: Moisture - Good	Aliphatic solvents - Moderate		
	: Acid spillage - Moderate	Abrasion - Moderate		
	: Alkali spillage - Moderate	Weather - Excellent		
RECOMMENDED UNDERCOATS	: Epigrip C425V2 Zinc Phosphate Primer/Buildcoat : Epigrip M922M : Duraplate 301W : ACROLON 1850 must be applied over epoxy materials within 4 days at 23°C to ensure satisfactory intercoat adhesion.			
RECOMMENDED TOPCOATS	: Indefinitely self-overcoatable.			
POT LIFE	: 5 hours at 15°C	3 hours at 23°C	1 hours at 35°C	
PACKAGE	: A two component material supplied in separate containers to be mixed prior to use.			
Pack Size	: 5 litre units when mixed.			
Mixing Ratio	: 2:1 by vol part additive by volume.			
Weight	: White 1.42 kg/litre (may vary with shade).			
Shelf Life	: 12 months from date of manufacture or 'Use By' date where specified.			

SURFACE PREPARATION:

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

APPLICATION EQUIPMENT:**Airless Spray**

Nozzle Size : 0.33mm (13 thou)
Fan Angle : 40°
Operating Pressure : 176kg/cm² (2500 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/cm² (50 psi)
Fluid Pressure : 0.7kg/cm² (10 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.

Brush

The material is suitable for brush application.

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 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.

Steelwork coated with ACROLON 1850 Special Finish should be protected from weather for 4-6 hours after application, depending on conditions. Consult Sherwin-Williams if in doubt.

ADDITIONAL NOTES:

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

The curing reaction 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.

Tropical Use

ACROLON 1850 at the time of mixing should not exceed a temperature of 35°C. Use of this product outside its pot life may result in inferior adhesion properties even if the material appears fit for application. Thinning the mixed product will not alleviate this problem.

It is not advisable to apply this coating when the air and substrate temperatures exceed 45°C. These conditions can introduce paint film formation defects, such as dry spray, bubbling and pinholing etc.

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.

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.