Protective & Marine Coatings

METAGARD L674

PRODUCT TECHNICAL DATA

FULL DESCRIPTION	:	METAGARD L674 BLAST PRIMER :
MATERIAL TYPE	:	2-pack epoxy blast primer
RECOMMENDED USE	:	Quick drying anti-corrosive protection of carbon steel surfaces prepared by abrasive blast cleaning.
	:	Suitable for use in conjunction with cathodically protected steel.
	:	Suitable for overcoating with most paints in common use except high content metallic zinc products.
	:	Suitable as a primer for use over degreased/abraded or blast cleaned aluminium.
ENDORSEMENTS	:	Complies with BS5493:1977 - Table 4A Type AP1A.
	:	Network Rail Item No. 7.1.2
RECOMMENDED APPLICATION METHODS	:	Airless Spray — Brush (for small areas and touch up only)
	:	Conventional Spray — Roller
COLOUR AVAILABILITY	:	Buff and Red Oxide
FLASH POINT	:	Base : 9°C — Additive : 12°C
% SOLIDS BY VOLUME	:	42 ± 2% (ASTM-D2697-91)
V.O.C.	:	515 gms/litre determined practically in accordance with UK Regulations PG6/23
		508 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive
		382 gms/kilo content by weight from formulation, to satisfy EC SED

TYPICAL THICKNESS

Dry film thickness	**Wet film thickness**	**Theoretical coverage**
50 microns	119 microns	8.4 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**	**Roller**	**Brush**
Dry	50	50	40	25
Wet	119	119	95	60

AVERAGE DRYING TIMES

	At 15°C	**At 23°C**	**At 35°C**
To touch	15 minutes	12 minutes	8 minutes
To recoat	2½ hours	1½ hours	45 minutes
To handle	4 hours	3 hours	45 minutes

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 — Weather - Good (Subject to Chalking)
		Abrasion - Moderate
RECOMMENDED TOPCOATS	:	Indefinitely overcoatable with epoxy systems provided the surfaces to be coated have been suitably cleaned. Where a high degree of gloss and colour retention is required overcoat with Resistex C137V2, Resistex C237, Resistex K651 within 7 days at a minimum dft of 50 microns or in the case of 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.
POT LIFE	:	8 hours at 15°C — 6 hours at 23°C — 3 hours at 35°C
PACKAGE	:	A two component material supplied in separate containers to be mixed prior to use
Pack Size	:	20 litre and 5 litre units
Mixing Ratio	:	4 parts base to 1 part additive by volume
Weight	:	1.38 kg/litre (may vary with shade).
Shelf Life	:	12 months from date of manufacture or 'Use By date where specified.

SURFACE PREPARATION:

Ferrous Surfaces

For optimum performance use round steel shot and blast clean to Sa2½ BS EN ISO8501-1(2007). Average surface profile in the range 30-50 microns.

Aluminium

For optimum adhesion all surfaces should be flash blasted using non-metallic abrasive. Alternatively, surfaces can be degreased and thoroughly abraded using 120's grade silicone carbide paper.

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	:	155kg/cm² (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.

Conventional Spray

Nozzle Size	:	1.27mm (50 thou)
Atomising Pressure	:	3.5kg/cm² (50 psi)
Fluid Pressure	:	1.0kg/cm² (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.

Brush

The material is suitable for brush application to small areas and for touch up purposes.

Roller

The material is suitable for roller application.

APPLICATION CONDITIONS AND OVERCOATING:

Epoxy paints should preferably be applied at temperatures in excess of 10ºC. In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature should be at least 3ºC 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 10ºC 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.

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.

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.