New Guard Coatings Group

A global reputation to protect.

The information herewith is given with the best of New Guard Coatings Group knowledge.

Rights are reserved to change and update the data without notice.

This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

Protective & Marine Coatings

MACROPOXY™ L574
EPOXY BLAST PRIMER

FORMERLY KNOWN AS METAGARD L574

Revised 02/2016 Issue 26

PRODUCT INFORMATION

PRODUCT DESCRIPTION

A 2-pack epoxy temporary protective primer.

RECOMMENDED USE

Temporary protective for steel surfaces prepared by abrasive blast cleaning.

Suitable for use in conjunction with cathodically protected steel. Suitable for welding and fabrication and for overcoating with most paints in common use except high content metallic zinc products (see note on fabrication overleaf).

As a sealer for aluminium and zinc metal spray.
As a primer for use over stainless steel and non-ferrous metallic substrates.

ENDORSEMENTS

Network Rail item No. 7.1.2

RECOMMENDED APPLICATION METHODS

Airless Spray
Conventional Spray
Brush (for small areas and touch up only)
Roller

Recommended Cleanser/Thinner: No 5

PRODUCT CHARACTERISTICS

Flash Point: Base : 9°C Additive : 12°C

% Solids by Volume: 29 ± 1% (ASTM-D2697-86)

Pot Life: 10hrs @ 15°C 8hrs @ 23°C 4 hrs @ 35°C

Colour Availability: Limited range.

VOC
594gms/litre determined practically in accordance with UK Regulations PG/23
621gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive
518gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

RECOMMENDED THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
25 microns	86 microns	11.6 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	25	25	25	20
Wet	86	86	86	69

AVERAGE DRYING TIMES

	At 15°C	At 23°C	At 35°
To touch:	10 minutes	5 minutes	3 minutes
To recoat:	4 hours	3 hours	2 hours
To handle:	30 minutes	20 minutes	15 minutes

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

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 Acrolon C137V2, Acrolon C237 Acrolon 1850 and Acrolon 7300 within 7 days at a 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 23ºC 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: 20 litre and 5 litre units.

Mixing Ratio: 4 parts base to 1 part additive by volume.

Weight: 1.20 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

FERROUS SURFACES: For optimum performance use round steel shot and blast clean to Sa2½ BS EN ISO 8501-1 (2007). Average surface profile in the range 30-50 microns.

NON FERROUS SURFACES: For optimum adhesion all surfaces should be flash blasted using non-metallic abrasive and coated with L574 within 4 hours of blasting. Under conditions of high humidity a shorter period will be necessary.
ALL SURFACES: 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.

Preparation and Build Up:
Metagard L574 is not intended to replace a coat of primer in the main paint specification, it is designed to provide temporary protection, until the specified paint scheme can be applied. However in practice the use of Macropoxy L574 does make a substantial contribution to the performance of the complete paint specification in terms of ultimate durability and resistance to corrosion.
The applied dry film thickness of prefabrication primers is normally below 30 microns. At this level of dry film thickness, factors such as blast profile, unevenness of application and severity of exposure conditions may significantly affect the performance.

APPLICATION CONDITIONS AND OVERCOATING

Epoxy paints should preferably be applied at temperatures in excess of 10ºC. 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.

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.

Fabrication: While Macropoxy L574 Primer is classed and approved as a welding primer, under certain types of welding operations e.g. high speed twin-fillet welding, fabricators are advised to satisfy themselves that the product is suitable for their particular welding process.

Epoxy Coatings - Tropical Use: Epoxy paints at the time of mixing should not exceed a temperature of 35ºC. 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.

It is not advisable to apply epoxy coatings when the air and substrate temperatures exceed 45ºC. 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 & 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.