



Protective & Marine Coatings

MACROPOXY™ L524 EPOXY BARRIER PRIMER

FORMERLY KNOWN AS EPIGRIP L524

Revised 08/2016 Issue 28

PRODUCT INFORMATION

PRODUCT DESCRIPTION

A high build 2-pack modified epoxy coating.

RECOMMENDED USE

Hard wearing abrasion resistant coating with excellent resistance to immersion in salt and fresh water and crude oil.

For the protection of ships bottoms and cargo tanks, and submerged and splash zone areas of marine structures, jetties etc.

For the external protection of buried and other pipelines.

Particularly useful where coal tar pitch containing materials are prohibited.

ENDORSEMENTS

Approved by Lloyds Register of Shipping

Network Rail - Item No. 7.2.2

RECOMMENDED APPLICATION METHODS

Airless Spray
Brush

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

PRODUCT CHARACTERISTICS

Flash Point: Base : 32°C Additive : 39°C

% Solids by Volume: 64 ± 3% (ASTM-D2697-91)

Pot Life: 8 hours at 15°C 6 hours at 23°C

Colour Availability: Limited range

VOC

296 gms/litre determined practically in accordance with UK Regulations PG6/23
344 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive
247gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

TYPICAL THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
125 microns	195 microns	5.1m 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

Thickness based on specification requirements of IMO PSPC:

Dry film thickness	Wet film thickness	Theoretical coverage
160 microns	234 microns	4.0m ² /ltr*

PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray	Brush
Dry	125*	85
Wet	195	133

* Maximum sag tolerance with overlap typically 352µm wet (225µm dry) by airless spray

AVERAGE DRYING TIMES

	@ 15°C	@ 23°C
To touch:	8 hours	6 hour
To recoat:	16 hours	12 hours
To handle:	16 hours	12 hours

These figures are given as a guide only. Factors such as air movement and humidity must also be considered. Forced ventilation may be required to achieve these overcoating times.

RECOMMENDED PRIMERS

Macropoxy L425 Zinc Phosphate Primer.
Macropoxy C400V3 Zinc Phosphate Primer (non immersed areas only)

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 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.

PACKAGE

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

Pack Size:	20 litre and 4 litre units when mixed.
Mixing Ratio:	3 parts base to 1 part additive by volume.
Weight:	1.35 kg/litre (may vary with shade).
Shelf Life:	2 years from date of manufacture or 'Use By' date where specified



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SURFACE PREPARATION

Blast clean to Sa2½ BS EN ISO8501-1:2007. Average surface profile in the range 50-75 microns.

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.

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. 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 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.

Due to the nature of this product, some variation in colour between batches of certain shades may be experienced, which is beyond our control. This colour difference does not in any way affect the performance of the material.

Epoxy Coatings - Colour Stability

Variable colour stability is a feature of epoxy materials which tend to yellow and darken with age particularly when used on internal 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.