Protective & Marine Coatings

MACROPOXY™ M922M
SURFACE TOLERANT

FORMERLY KNOWN AS EPIGRIP M922M

Revised 09/2017 Issue 13

PRODUCT INFORMATION

PRODUCT DESCRIPTION

A high solids 2-pack epoxy brushing and spraying mastic, pigmented with micronised glass flake, aluminium and anti-corrosives.

RECOMMENDED USE

Anti-corrosive protection of blast cleaned steel compatible with cathodic protection.

Formulated for high build application by brush, allowing applicators to achieve full specified thickness in a single coat, even on sharp edges and difficult access areas.

For application onto hand or mechanically prepared surfaces and/or damp gingered blasted surfaces, giving excellent wetting and adhesion characteristics.

Suitable for application onto hot substrates up to 120°C

Product will provide functional protection on hot substrates up to 150°C operating temperature.

ENDORSEMENTS

Network Rail Item 7.2.6

RECOMMENDED APPLICATION METHODS

Airless Spray
Brush

Recommended Thinner: No 9

PRODUCT CHARACTERISTICS

Flash Point: Base : 32°C Additive : 23°C

% Solids by Volume: 83 ± 4% (ASTM-D2697-91)

Pot Life: 3 hours @ 5°C 1½ hours @ 23°C 1 hour @ 35°C
(see notes on tropical use overleaf)

Colour Availability: Aluminium

VOC
146 gms/litre determined practically in accordance with UK Regulations PG6/23
179 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive
110 gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

RECOMMENDED THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
400 microns	482 microns	2.1 m2/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 (see note overleaf)	Brush
Dry	400	400*
Wet	482	482

** Maximum sag tolerance typically 2410µm wet (2000µm dry) by brush.*

AVERAGE DRYING TIMES

	@ 5°C	@ 15°C	@ 23°C
To touch:	12 hours	6 hours	4 hours
To recoat:	6 hours	4 hours	3 hours
To handle:	30 hours	16 hours	8 hours

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

RECOMMENDED PRIMERS

Primers are optional. M922M can be applied directly onto steel.
Macropoxy M111 Wet Blast Primer
Macropoxy L574 Blast Primer

RECOMMENDED TOPCOATS

Indefinitely self overcoatable provided the coating has been suitably cleaned. For optimum intercoat adhesion with other epoxy topcoats, overcoating should occur within 14 days. Where atmospheric exposure 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 23°C and will vary with temperature.

PACKAGE

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

Pack Size:	1 litre and 4 litre units when mixed
Mixing Ratio:	3 parts base to 1 part additive by volume
Weight:	1.50 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

Manually prepared surfaces should be prepared to a minimum standard of St2 BS EN ISO 8501-1:2007 at the time of coating.

Application to such surfaces should be by brush where the mechanical action will aid adhesion. Manual or mechanical power tool cleaning must not result in a smooth polished surface.

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

For spray application it is recommended that surfaces should be blast cleaned to Sa2½ BS EN ISO 8501-1:2007 using angular grit. Quill/wet abrasive blast to produce surface equivalent to Sa2½. Light surface gingering (ie not removable by rubbing) is permissible.

UHP blasted surfaces must reveal an underlying surface equivalent of Sa2½. Light surface gingering is permissible as above.

Average surface profile in the range 50-100 microns.

APPLICATION EQUIPMENT

Airless Spray

Nozzle Size:	0.38-0.53mm (15-21 thou)
Fan Angle:	40°
Operating Pressure:	210kg/cm² (3000 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.

N.B. Macropoxy M922M may be thinned up to 5% volume with Cleanser/Thinner No. 9 for airless spray application – adjust wft accordingly, sag tolerance may be affected if the product is thinned.
Application by roller is not recommended, as a stippled, uneven film may be achieved.

Brush
Macropoxy M922M is capable of being applied by brush at 400 microns dft.

It is possible to apply Macropoxy M922M onto a damp substrate (no running or pooled water) by brush application. Ensure that the paint fully displaces any water on the substrate.

Macropoxy M922M may be applied by brush onto hot surfaces up to 120°C. Multiple coats will be necessary to achieve required film build. Ensure good ventilation and adequate PPE due to rapid
vapourisation of solvent from the film at high temperatures.

APPLICATION CONDITIONS AND OVERCOATING

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.

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 - Colour Stability:
Variable colour stability is a feature of epoxy materials which tend to yellow and darken with age. 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 temperature for application is 50°C providing conditions allow satisfactory application and film formation. If the air 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.

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.