Protective & Marine Coatings

EPIGRIP M922M

PRODUCT TECHNICAL DATA

FULL DESCRIPTION	:	EPIGRIP M922M MASTIC ALUMINIUM
MATERIAL TYPE	:	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 and cathodically protected steel.
	:	Possesses excellent abrasion resistance and has excellent resistance to immersion in sea water.
	:	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 100°C – see Notes on Application overleaf.
ENDORSEMENTS	:	Network Rail Item 7.2.6
	:	Complies with NORSOK M501 Rev. 5 System 7
RECOMMENDED APPLICATION METHODS	:	Brush
	:	Airless Spray
COLOUR AVAILABILITY	:	Aluminium
FLASH POINT	:	Base : 32°C Additive : 23°C
% SOLIDS BY VOLUME	:	83 ± 4% (ASTM-D2697-91)
V.O.C.	:	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 SED
TYPICAL THICKNESS	:	**Dry film thickness** — **Wet film thickness** — **Theoretical coverage**
	:	400 microns — 482 microns — 2.1 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	:	**Brush** — **Airless Spray (see note overleaf)**
	:	Dry — 400* — 400
	:	Wet — 482 — 482
		** Maximum sag tolerance typically 2000µm dry by brush.*
AVERAGE DRYING TIMES	:	**At 5°C** — **At 15°C** — **At 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 THINNER	:	Cleanser/Thinner No. 9
RESISTANCE TO	:	Moisture - Excellent — Aliphatic solvents - Excellent
		Acid spillage - Moderate — Abrasion - Excellent
		Alkali spillage - Excellent — Weather – Excellent (subject to chalking)
		Petroleum solvents - Excellent
RECOMMENDED PRIMERS	:	Primers are optional. M922M can be applied directly onto steel.
	:	Epigrip C425V2 Zinc Phosphate Primer/Buildcoat
	:	Epigrip M111 Wet Blast Primer
	:	Metagard 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 Resistex C137V2 and Resistex C237 within 7 days at a minimum dft of 50 microns or in the case of Leighs C750V2 overcoat within 4 days. These overcoating times refer to achievement of optimum adhesion at 23°C and will vary with temperature. For overcoating outside the above parameters and with alkyd systems, consult Sherwin-Williams.
POT LIFE	:	3 hours at 5°C — 1½ hours at 23°C — 1 hour at 35°C (see notes on tropical use overleaf)
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.

SURFACE PREPARATION:
Manually prepared surfaces should be prepared to a minimum standard of St3 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.
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 50-75 microns.

APPLICATION EQUIPMENT:
Brush
Epigrip M922M is capable of being applied by brush at 400 microns dft.
It is possible to apply M922M onto a damp substrate (no running or pooled water) by brush application. Ensure that the paint fully displaces any water on the substrate.
M922M may be applied by brush onto hot surfaces up to 100°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.
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. 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.

APPLICATION CONDITIONS AND OVERCOATING:
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.
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 - Colour Stability:
Variable colour stability is a feature of epoxy materials which tend to yellow and darken with age whether used on internal or external 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 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.
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.