

SELECTION & SPECIFICATION DATA

Generic Type	Phenalkamine epoxy
Description	High performance epoxy that has excellent resistance to fresh and salt water exposures. This coating exhibits outstanding moisture and surface tolerance during application, low temperature cure capability, and very fast cure response for quick return to service. It contains an inert flake reinforcement (micaceous iron oxide) to enhance film strength and performance. This product is ideal for industrial or heavy duty marine environments for the protection of steel against salt laden environments.
Features	<ul style="list-style-type: none"> • High solids, low VOC • Low temperature cure • Excellent wetting properties • Excellent surface tolerance • Excellent moisture tolerance (application) • Fast cure response • Suitable for immersion service in fresh or salt water after 60 minute cure at 24°C • Approved for use in food & dairy processing plants (refer to "Approvals NZ/AU" section)
Colour	MIOX and Aluminium Grey
Gloss	Semi-gloss
Primer	Self-priming
Film Build	125 - 250 microns dry per coat
Solid(s) Content	By volume 80% +/- 2%
Theoretical Coverage Rates	6.4 m ² per litre at 125 microns dry 5.3 m ² per litre at 150 microns dry 3.2 m ² per litre at 250 microns dry Allow for loss in mixing and application
VOC Values	As Supplied : 172 g/l These are nominal values and may vary with colour.
Dry Temp. Resistance	Continuous: 93°C (199°F) Non-Continuous: 120°C (248°F)
Limitations	Epoxies lose gloss, discolour, and eventually chalk in sunlight exposure
Topcoats	Acrylics, Alkyds, Epoxies, Polyurethanes
Wet Temp. Resistance	Immersion temperature resistance depends upon the exposure. Contact Carboline for specific information.

SUBSTRATES & SURFACE PREPARATION

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants as described in SSPC-SP 1 (AS 1627.1).
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Carbomastic 615

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

	<p>Immersion: Abrasive blast to SSPC-SP 10 (AS 1627.4 Sa 2½) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm. May also be applied over NACE/SSPC WJ-1 to WJ-2 water-jet cleaned surfaces and to wet abrasive blast cleaned surfaces as per NACE WAB-2/SSPC-SP 10 (WAB). In both instances the level of rust bloom must be no greater than M-Medium.</p>
Steel	<p>Non-Immersion: Abrasive blast to a minimum SSPC-SP 6 (AS 1627.4 Sa 2) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm. Power or hand tool cleaning are also acceptable methods.</p> <p>When using under fireproofing products, defer to the primer surface preparation requirements in the product data sheet of the fireproofing product.</p>
Concrete	<p>Do not apply coating unless concrete has cured at least 28 days at 21°C and 50% RH or equivalent. Normally clean and dry. Remove all loose, unsound concrete. This product can tolerate damp concrete (green appearance but not visibly wet). Not recommended for applications when hydrostatic pressure may occur. Consult Carboline Technical Service for more specific recommendations</p>

MIXING & THINNING

Mixing	Mix each component separately, then combine and mix in a 4:1 by volume ratio (Part A : Part B)
Thinning	For spray application thin up to 12% by volume with Thinner #2 or #12. For brush / roller applications thin up to 12% with Thinner #25.
Ratio	4:1 by volume (Part A to Part B)
Pot Life	1½ hours at 24°C and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Spray Application (General)	Hold gun 300-400 mm from the surface and at a right angle to the surface.
Conventional Spray	Pressure pot equipped with dual regulators, 9.5 mm (3/8") I.D. minimum material hose, 1.8 mm (.070") I.D. fluid tip and appropriate air cap.
Airless Spray	Pump Ratio: 30:1 (min) Volume Output: 9.5 l/min min. Material Hose: 9.5mm min.(3/8") I.D. min.) Tip Size: 0.43-0.53mm (0.017-0.021") Output Pressure: 140-175kg/cm² (2000-2500 psi) Use a 12.5 mm (1/2") minimum I.D. material hose *PTFE packings are recommended and available from pump manufacturer.

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

**Brush & Roller
(General)**

Not recommended for tank lining applications except when striping welds.
For non-immersion applications over damp surfaces, brush and roller is the preferred method. Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding.
Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 24°C. Thin up to 12% by volume with Thinner #25. Use a short-nap synthetic roller cover with phenolic core

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	7°C (45°F)	-7°C (19°F)	-7°C (19°F)	0%
Maximum	32°C (90°F)	49°C (120°F)	38°C (100°F)	95%

Industry standards are for substrate temperatures to be above the dew point. **For immersion conditions it is recommended to follow this procedure.** For non-immersion conditions Carbomastic 615 can tolerate damp substrates. See Brush or Roller above. Special thinning and application techniques may be required above or below normal conditions. Do not apply to substrates with ice or ice crystal formation. Dehumidify or raise the temperature to eliminate ice on the substrate.

CURING SCHEDULE

Surface Temp.	Dry to Topcoat Minimum	Maximum Recoat Time	Minimum cure for immersion service
-7°C (20°F)	72 Hours	45 Days	7 Days
2°C (35°F)	2 Days	30 Days	5 Days
16°C (60°F)	8 Hours	15 Days	3 Hours
24°C (75°F)	2 Hours	7 Days	1 Hour
32°C (90°F)	90 Minutes	3 Days	1 Hour

These times above are based on a 125-250 micron dry film thickness per coat. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. If the maximum recoat times have been exceeded, the surface must be abraded by sweep blasting or sanding prior to the application of additional coats.

CLEANUP & SAFETY

Cleanup

Use Thinner #2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

Safety

Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions.

Ventilation

When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapour concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure or if not able to monitor levels, use suitable approved supplied air respirator.

Caution

This product contains flammable solvents. Keep away from sparks and open flames.

Carbomastic 615

PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: 48 months at 24°C Part B: 24 months at 24°C Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers. For products/components exceeding the stated shelf life, contact Technical Services for further advice.
Storage Temperature & Humidity	4°C-38°C 0-95% Relative Humidity
Flash Point (Setaflash)	Part A: 43°C Part B: 32°C Mixed: 39°C
Shipping Weight (Approximate)	1.25 litre kit: 2.4 kg 5 litre kit: 9.5 kg 10 litre kit: 19 kg
Storage	Store Indoors. KEEP DRY

APPROVALS

Approvals NZ/AU	Food Processing - New Zealand AsureQuality® assessed for food/beverage industry including dairy factory and dairy farm non-incident contact (assessment reference number: h3110).
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WARRANTY

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