Carboguard 636 PW

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Phenalkamine Epoxy
Description	High performance immersion grade epoxy that is designed as a liner for potable water tanks. This coating exhibits moisture tolerance during application, low temperature cure capability, and fast cure response for quick return to service. Product is self-priming on steel and is normally applied in two coats. Formulated for application at 120 to 180 microns DFT per coat for potable use.
Features	• Very good flexibility – resists chipping and aged embrittlement • Lighter weight – 13% lighter than most similar coatings • Versatile surface tolerant coating • AS/NZS 4020 Potable Water Approval (see "Approvals NZ/AU" section) • Lower viscosity allows application at higher solids (less thinning) and reduced VOC at application • Fast dry to recoat • Low temperature cure to below freezing; -5°C • Reduced HAPS and Low VOC
Colour	Potable Light Grey and Potable White
Gloss	Low Sheen
Film Build	Recommended: 150 microns dry per coat Acceptable Range: 120 - 180 microns dry per coat Two coats are required for potable water lining applications.
Solid(s) Content	80% by volume
Coverage Rate	5.33 square metres per litre at 150 microns DFT (theoretical)
VOC Value(s)	213 grams per litre (mixed)
Dry Temp. Resistance	Continuous: 90°C (194°F) Non-Continuous: 121°C (250°F)
Limitations	Exterior exposure will cause early loss of sheen, possible discolouration and chalking. This will not affect the protective properties of the coating.

SUBSTRATES & SURFACE PREPARATION

General	Remove any oil or grease from surface using clean rags soaked in Thinner #2 or toluene.
Steel	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. Prime as required.
Concrete	Concrete should be fully cured for 28 days at 21°C and 50% RH or equivalent. Remove all laitance by sweep abrasive blasting, HP Water-Jetting or acid etching. For maximum performance and to reduce the risk of pin-holing seal the prepared concrete with Carboguard 1340.

MIXING & THINNING

Mixing	Mix each component separately, then combine and mix to the correct 4:1 proportions.
Thinning	Thin up to 12.5% with Thinner #10

MIXING & THINNING

Ratio	4:1 by volume (Part A : Part B) **10 litre kit:** Part A = 8 litre Part B = 2 litre
Pot Life	4 hours at 25°C
Induction Time	15 minutes at 25°C; longer if colder

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.

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. Hold gun 300-350 mm from the surface and at a right angle to the surface.
Airless Spray	Pump Ratio: 45:1 Volume Output: 11.5 l/minute min. Material Hose: 12.5mm min. (½” I.D.) recommended Tip Size: 0.53-0.78mm (.021-.031”) Output Press.: 140-175kg/cm² (2000-2500 psi) The following spray equipment has been found suitable; or equivalent. Mfr. & Gun: Graco 207-300 Pump*: Bulldog 45:1 *Teflon packings are recommended and available from pump manufacturer.
Brush	Manual application is not recommended for tank lining applications except when applying stripe coats. Avoid excessive re-brushing.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	-7°C (19°F)	-7°C (19°F)	0%
Maximum	32°C (90°F)	50°C (122°F)	35°C (95°F)	90%
Optimum	20°C (68°F)	20°C (68°F)	20°C (68°F)	30%

Industry standards are for substrate temperatures to be above the dew point. For immersion conditions it is recommended to follow this procedure. Special thinning and application techniques may be required above or below normal conditions.

CURING SCHEDULE

Surface Temp.	Dry to Recoat Minimum	Dry to Recoat Maximum	Final Cure Immersion
-5°C (23°F)	16 Hours	30 Days	45 Days
16°C (61°F)	5 Hours	14 Days	14 Days
24°C (75°F)	3 Hours	5 Days	7 Days
32°C (90°F)	2 Hours	2 Days	7 Days

These times are based on a 125-200 micron dry film thickness per coat. Drying and curing rates are influenced by ventilation, film thickness, humidity, thinning and other factors.
***Temperature Cautionary Note**: The temperatures in the table above refer to the time-weighted average substrate or coating temperatures NOT ambient air temperature.

CLEANUP & SAFETY

Cleanup	Use Thinner #2, #10, #12 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. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.
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.
Caution	This product contains flammable solvents. Keep away from sparks and open flames.

PACKAGING, HANDLING & STORAGE

Packaging	MTO - 10 litre kits
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	4-38°C 0-95%
Flash Point (Setaflash)	Mix: 38°C
Storage	Store indoors and KEEP DRY

APPROVALS

Approvals NZ/AU	**AS/NZS 4020:2005 Potable Water Approval** AWQC Ref: 130243-2017-CSR-1. Report #240955, Dec 2018. Exposure <5,000 mm²/L

WARRANTY

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