

SELECTION & SPECIFICATION DATA

Generic Type	Carboguard® 504 is an inert non-inhibitive anticorrosive modified polyamide cured epoxy primer.
Description	Carboguard® 504 is a high performance and immersion grade (fresh & salt water) chemically cured epoxy primer. Carboguard® 504 may be applied over suitably prepared mild steel, non-ferrous metals and most GRP substrates.
Features	<ul style="list-style-type: none"> • Excellent primer for water and many aqueous chemicals immersion service when top-coated with an approved finish • Excellent adhesion to difficult substrates • Excellent holding primer • Excellent corrosion resistance • Complies with AS/NZS 3750.13 (2 pack epoxy primer), Types 1, 2 & 3. • Approved for use in NZ Food Processing Plants (see Approvals NZ/AU, page 4) • Good abrasion resistance • Very good aged re-coatability • Resists splash and spillage or fumes of a wide range of chemicals • Easy application by brush, roller or spray • Ideal tie-coat over inorganic zincs • Versatile - can be used on most substrates under many different types of topcoat • Long pot-life • Excellent maintenance touch-up primer for hand-cleaned substrates • A user-friendly primer for epoxy or polyurethane systems in environments not suited to zinc primers due to acidic or alkaline fallout or splash & spill.
Colour	Buff Grey (10 litre kits only)
Gloss	Flat
Primer	N/A - self-priming May be used as intermediate or tie-coat over zinc rich primers such as Carbozinc® 859 EZ2, Carbozinc® 858, & Carbozinc® 11.
Film Build	40-75 microns DFT per coat; optimum 50 microns DFT
Solid(s) Content	50% ± 2% by volume (ASTM D2697 - 7 days)
Coverage Rate	10 square metres per litre at 50 microns DFT 80-150 microns WFT; 40-75 microns DFT
VOC Value(s)	432 grams per litre (mixed)
Dry Temp. Resistance	Continuous: 90°C (194°F) Non-Continuous: 121°C (250°F) Discolouration will be observed above 93°C
Limitations	Not suitable for exposure to strong solvents. Avoid excessive dry film thickness. Exceeding 75 microns will compromise rate of cure and may result in solvent entrapment. Low temperatures, high humidity and poor ventilation will exacerbate the problem. Exterior exposure will cause early loss of sheen, possible discolouration and chalking. This will not affect the protective properties of the coating.
Topcoats	Epoxies, polyurethanes, intumescent base-coats & anti-foulings

Carboguard 504

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

General	Remove any oil or grease from surface using clean rags soaked in Thinner #2 or toluene.
Steel	<ul style="list-style-type: none">• For optimum performance in Industrial & marine environments, 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.• Interior Non critical exposures: Abrasive Blast SSPC SP6 (AS/NZS 1627.4 Class 2) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm.• For site repairs and where abrasive blasting can not be employed, power tool clean all surfaces to SSPC-SP 3 (AS 1627.2 St 3).
Galvanized Steel	Degrease in accordance with SP1. Sweep abrasive blast or mechanically abrade (80 grit) to remove all passivation treatment, white rust etc and render a profiled surface. <i>Apply coating immediately after surface preparation to avoid formation of deleterious zinc hydrolysis chemical contamination.</i>
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.
Previously Painted Surfaces	<ul style="list-style-type: none">• Check existing surface for solvent-resistance and compatibility before commencing work.• Spot abrasive blast as required, sweep blast or sand existing sound coating.

MIXING & THINNING

Mixing	Mix each component separately, then combine and mix to the correct 4:1 proportions.
Thinning	Thinning requirement will vary depending upon conditions. Thin with Thinner #12 as required for good atomisation; typically between 5% - 20%.
Ratio	4:1 by volume (Part A : Part B) • <u>1¼ litre kit:</u> Part A, 1 litre; Part B, 0.25 litre • <u>5 litre kit:</u> Part A, 4 litres; Part B, 1 litre • <u>10 litre kit:</u> Part A, 8 litres; Part B, 2 litres
Pot Life	12 hours at 25°C (5 litre kit)

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.

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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.

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Airless Spray	<p>Pump Ratio: 30:1 Volume Output: 10 l/minute min. Material Hose: 9.5 mm (3/8") min. Tip Size: .015-.019" Output Press.: 2100-2400 psi *Teflon packings are recommended and available from pump manufacturer.</p>
Brush & Roller (General)	<p>The desired film thickness is easily achieved in a single brush or roller coat; however due to the initial lacquer dry characteristic of this coating additional thinning with Thinner #12 may be required for a smooth finish; in warm or windy conditions use of slower solvent such as Thinner #25 may be advantageous. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 24°C.</p>

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	5°C (41°F)	5°C (41°F)	5°C (41°F)	0%
Maximum	32°C (90°F)	50°C (122°F)	50°C (122°F)	85%
Optimum	20°C (68°F)	20°C (68°F)	20°C (68°F)	50%

Industry standards are for substrate temperatures to be above the dew point.

CURING SCHEDULE

Ambient Cure	<p>Re-Coat & Top-Coat Guide</p> <ul style="list-style-type: none"> • Self or Epoxy - Minimum: 6 hr @ 5°C; 2½ hr @ 15°C; 2 hr @ 25°C; 1½ hr @ 30°C Self or Epoxy - Maximum: 90 dy @ 5°C; 90 dy @ 15°C; 60 dy @ 25°C; 30 dy @ 30°C • Polyurethanes (all) - Minimum: 8 hr @ 5°C; 5 hr @ 15°C; 4 hr @ 25°C; 3 hr @ 30°C Carbothane Series (**except 130 Clear Coat) - Maximum: 28 dy @ 5°C; 28 dy @ 15°C; 14 dy @ 25°C; 5 dy @ 30°C • **Carbothane 130 Clear Coat & E-Line 379 - Maximum: 10 dy @ 5°C; 7 dy @ 15°C; 5 dy @ 25°C; 2 dy @ 30°C • Temperature Cautionary Note: The temperatures noted above refer to the time-weighted average substrate or coating temperatures NOT ambient air temperatures. In exterior situations surface temperatures can vary widely with sunlit surfaces often being 20+°C higher than the air temperature. **Both E-Line® 379 and Carbothane 130 Clear Coat have limited time to top-coat windows; maximum adhesion is obtained by strictly observing top-coat window times. When in doubt light sanding to matte finish prior to top-coating is recommended. <p>E-Line® is the registered trademark of Altex Coatings Limited</p>
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CLEANUP & SAFETY

Cleanup	Use Thinner #2, #12 or acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
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Carboguard 504

PRODUCT DATA SHEET



CLEANUP & SAFETY

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

Shelf Life	Part A: 24 months @ 24°C Part B: 24 months @ 24°C *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	4-38°C 0-95%
Flash Point (Setaflash)	Part A: 23°C Part B: 23°C
Storage	Store indoors and KEEP DRY
Packaging	<ul style="list-style-type: none">• NZ Buff: 10 litre, 5 litre, 1¼ litre• NZ Grey: 10 litre• AU Buff: 10 litre, 5 litre

APPROVALS

Approvals NZ/AU	Food Processing NZ AsureQuality assessed & passed for food/beverage including dairy farm & factory non-incident contact. Ref: H3106.
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WARRANTY

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