

Selection & Specification Data

Generic Type	Carboguard® 504 ZP Grey is a zinc phosphate modified inhibitive anti-corrosive polyamide cured epoxy primer.
Description	Carboguard® 504 ZP Grey is a high performance chemically cured epoxy zinc phosphate primer. Carboguard® 504 ZP Grey may be applied over suitably prepared mild steel, non-ferrous metals and other substrates as specified.
Features	<ul style="list-style-type: none"> • Excellent adhesion • Excellent holding primer • Excellent corrosion resistance • Complies with AS/NZS 3750.13 (2 pack epoxy primer), Types 1, 2 & 3. • 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 • Versatile - can be used 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.
Gloss	Flat
Colour	Grey
Topcoats	Epoxies, Polyurethanes, CR & Vinyls, Acrylics, Alkyds
Dry Film Thickness	40 – 75 microns; optimum 50 microns DFT
Solids Content	50% ± 2% (ASTM D2697 – 7 days)
Theoretical Coverage Rate	10 square metres per litre at 50 microns DFT 80 – 150 microns WFT; 40 – 75 microns DFT
Mix Ratio	4:1 by volume (Part A : Part B)
VOC Values	432 g / litre
Dry Temp. Resistance	121°C - maximum
Limitations	Not suitable for exposure to strong solvents.

Substrates & Surface Preparation

General	Remove any oil or grease from surface to be coated by the two rag method with clean rags soaked in Thinner #2.
Steel	Interior & moderate exterior exposure, abrasive blast AS1627.4 Class 2 or power tool clean. Exterior industrial & marine immersion, abrasive blast to AS1627.4 Class 2½ (SSPC SP10).
Galvanized Steel & Aluminium	Sweep abrasive blast to a matter finish with non-metallic blast media.
Concrete	Concrete should be cured for 28 days at 24°C or equivalent. Acid etch, sweep abrasive blast or high pressure water blast to remove all laitance.
Previously Painted Surfaces	Check existing surface for solvent-resistance and compatibility before commencing work. Spot abrasive blast as required, sweep blast or sand existing sound coating.

Typical Performance Data

Test	Method	Result
Abrasion Resistance	ASTM D4060; CS17 Wheel 250gm load, 1000 cycles	42 mg loss
Adhesion	ASTM D4541	900 psi (6.2 Mpa)
Humidity Resistance	ASTM D2247, 1000 hours	No effect
Impact Resistance	ASTM D2794, 16 gauge (1.6mm) steel	88 inch-pounds (101 kg-cm)
Salt Fog Resistance (Steel panel)	Q-Fog Prohesion 1000 hr	No effect on film integrity or adhesion, less than 1/8" (3mm) undercutting at scribe, less than 4% rusting at edges.
Pencil Hardness	AS 1580 405.1	F

Carboguard® 504 ZP

Application Equipment

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. **General Guidelines:**

Spray Application (General) The following spray equipment has been found suitable and is available from manufacturers such as DeVilbiss and Graco.

Conventional Spray Pressure pot equipped with dual regulators, 9mm (3/8") I.D. minimum material hose, 1.8mm (.070") I.D. fluid tip and appropriate air cap.

Airless Spray Pump Ratio: 30:1 (min.)*
Output: 10 lt/min (min.)
Material Hose: 9mm (3/8") I.D. (min.)
Tip Size: .015-.017"
Output PSI: 2100-2400
Filter Size: 60 mesh
*Teflon packings are recommended and available from the pump manufacturer.

Brush & Roller (General) 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 rebrushing or re-rolling. For best results, tie-in within 10 minutes at 24°C.

Mixing & Thinning

Mixing Power mix Part A and Part B separately, then combine and power mix.

Ratio 4:1 by volume (Part A : Part B)

Thinning Thinning requirement will vary depending upon conditions. Thin with Thinner #12 as required for good atomisation; typically between 5% - 20%.

Pot Life 12 hours at 25°C

Cleanup & Safety

Cleanup Use Thinner #12 or #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. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

Ventilation When sprayed may be harmful by inhalation - do not breath vapour or spray. Wear suitable clothing, gloves, eye and face protection.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	16°-24°C	16°-24°C	16°-24°C	30-70%
Minimum	5°C	5°C	5°C	0%
Maximum	32°C	50°C	50°C	95%

Curing & Recoat / Top-Coat Guide Schedule - CG 504 ZP @ 50µm DFT

Over-Coating Sequence	Temp:	5°C	15°C	25°C	30°C
Self or epoxy	Min.	6 hr	2½ hr	2 hr	1½ hr
Polyurethanes (PUR)	Min.	8 hr	5 hr	4 hr	3 hr
Self or epoxy	Max.	90 dy	90 dy	60 dy	30 dy
PUR *except E-Line 379 & CT 130 Clear Coat	Max.	28 dy	28 dy	14 dy	5 dy
*E-L 379 & CT 130	Max.	10 dy	7 dy	5 dy	2 dy

Temperature Cautionary Note: The temperatures in the table above refer to the time-weighted average substrate or coating temperatures NOT ambient. 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.

Packaging, Handling & Storage

Pack Sizes AU only 1 litre , 5 litre & 10 litre kits

Flash Point (Setaflash) Part A: 23°C
Part B 23°C

Storage Temperature & Humidity Store Indoors.
KEEP DRY 4°C-38°C
0-95% Relative Humidity

Shelf Life Part A & B: 24 months minimum

***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**

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