Carboguard 636 XT GF

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Glass filled cross-linked pure epoxy
Description	A glass-flake filled, multi-purpose,advanced technology coating suited to marine and industrial applications. Suitable for atmospheric and many immersion exposures. The DTM properties make it a versatile coating in maintenance and new work applications. Syntactic foam modification gives it unique thermal shock resistance and flexibility. Glass flake reinforcement enhances film strength, impact resistance and barrier properties.
Features	• Excellent physical and barrier properties • Versatile surface tolerant coating • Good adhesion to tight rust - especially when used in conjunction with Rustbond PS or Altra~Lock 576 • Tolerant to surface dampness - particularly when brush/roller applied • Fast dry to recoat • Excellent dry to handling properties • Suitable for fresh and salt water immersion • Low temperature cure to below freezing; down to -5°C • Reduced HAPS and low VOC • Cleaner colours and improved colour stability
Colour	**Standard:** White, Black, Golden Yellow, Light Grey, Blue Grey, MIOX, Aluminium, and tintable to an extensive range of RAL, AS 2700, BS 5252, and Resene standard colours **NZ Only:** Cloud Grey
Finish	Low Sheen
Primer	Self-priming. May be applied over Carbozinc 858 series, Carbozinc 11, Carboguard 504, Carboguard 635, Carbomastic 615, Rustbond PS, Altra~Zinc 605, or Altra~Lock 576.
Film Build	100-400+ microns dry per coat Application greater than 200 microns DFT may require multiple wet-on-tack coats depending upon multiple variables (e.g. application equipment, thinning rate, temperatures etc)
Solid(s) Content	By Volume 83%
Theoretical Coverage Rates	5.5 m²/litre at 150 microns dry 4.2 m²/litre at 200 microns dry Allow for loss in mixing and application
VOC Value(s)	221 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	Exterior exposure will cause early loss of sheen, possible discolouration and chalking. This will not affect the protective properties of the coating. For immersion projects use only factory-made materials in standard colours.
Topcoats	Carbothane 134 HG or 133 LH, Carboguard 2929, E~Line series, or self-finishing.

SUBSTRATES & SURFACE PREPARATION

General	Any surface contamination shall be removed in accordance with SSPC-SP 1 (AS 1627.1)
Steel	• For optimum performance & immersion service: 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. • For general commercial work: 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. • For general maintenance: Minimum power-tool clean to SSPC-SP 3 (AS 1627.2 St 3)
Galvanised Steel	Galvanising requires a roughened surface for optimum adhesion/performance of high build epoxies. Ensure there are no chemical treatments that may interfere with adhesion; and abrade (80 grit) or sweep abrasive blast the surface to establish a suitable roughness (typically 25 microns). Avoid aggressive preparation that may remove the zinc coating. Cleaned and roughened galvanising should be coated immediately after preparation, particularly in humid conditions above 50% RH. **Do not allow adhesion-compromising zinc hydroxide (white rust) to form before application.**
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	This is a 3-component kit. Mix liquid components separately, then combine and mix in the following proportions (4:1 ratio by volume). Slowly add Glass Flake Additive while mixing. • **5 Litre Kit** • Part A: 4 litres • Part B: 1 litre • Glass Flake Additive: 1.08 kg • Yield: 5.45 litres • **10 Litre Kit** • Part A: 8 litres • Part B: 2 litres • Glass Flake Additive: 2x 1.08 kg packs • Yield: 10.9 litres
Thinning	• For spray application typically thin 10-20% by volume with Thinner #12. • For brush / roller applications typically thin 10-20% by volume with Thinner #25.
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, 2.8 mm (.110”) I.D. fluid tip and appropriate air cap.

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Airless Spray	Pump Ratio: 45:1 (min.) Volume Output: 11.5 l/min minimum (2.5 gpm min.) Material Hose: 12.5mm min.(3/8" I.D. recommended) Tip Size: 0.87-1.0 mm (0.035-0.041") Output: 140-175kg/cm² Pressure: (2000-2500 psi) *PTFE packings are recommended and available from pump manufacturer.
Brush & Roller (General)	Manual application is 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. Use a short-nap synthetic roller cover with phenolic core.

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. For non-immersion conditions this product can tolerate damp substrates. See "Brush & Roller" above. Special thinning and application techniques may be required above or below normal conditions.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Minimum Recoat Time w/ Itself	Maximum Recoat Time w/ Itself	Minimum Recoat Time w/ Polyurethanes	Maximum Recoat Time w/ Polyurethanes
-5°C (23°F)	NR	16 Hours	30 Days	36 Hours	10 Days
16°C (61°F)	12 Hours	5 Hours	21 Days	12 Hours	7 Days
24°C (75°F)	6 Hours	3 Hours	14 Days	6 Hours	5 Days
32°C (90°F)	4 Hours	2 Hours	7 Days	4 Hours	2 Days

Note: Not tested at -5°C, Dry to Handle time for 5°C is 36 hours. The use of Altex Epoxy Accelerator additive up to 25mL per mixed litre will aid in positive overnight cure.
The above data is indicative for finished DFT's of 150-200 microns. Drying and curing rates are influenced by ventilation, film thickness, humidity, thinning and other factors.
Depending on the polyurethane topcoat, increased maximum time to topcoat can be achieved – consult Technical Services for further information.
***Temperature Cautionary Note:** The temperatures in the table above refer to the time-weighted average substrate or coating temperatures NOT ambient air temperature. In exterior situations surface temperatures can vary widely with sunlit surfaces often being 20+°C higher than the air temperature.

CLEANUP & SAFETY

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

CLEANUP & SAFETY

Safety	Read and follow all caution statements on this product data sheet and on the SDS 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. All electrical equipment and installations should be made and grounded in accordance with local electrical codes. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Packaging	5.45 litre & 10.9 litre kits (with Glass Flake add-pack)
Shelf Life	Part A: 48 months at 24°C Part B: 24 months at 24°C Glass Flake Additive: 60 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)	Part A: 34°C Part B: 32°C Glass Flake Additive: N/A
Storage	Store indoors and KEEP DRY

WARRANTY