

Selection & Specification Data

Generic Type	Cross linked epoxy polymeric amine
Description	An all purpose epoxy coating that has a variety of attributes including low temperature cure, surface tolerance, fast recoat times, moisture tolerance during application and cure, and excellent corrosion protection. Carboguard 635 can be used direct to metal as a corrosion resistant primer or as an intermediate coating over primers. It is suitable for both maintenance and new construction projects due to its excellent surface wetting characteristics and quick cure to handling. It may also be used for immersion in both fresh or salt (marine) water.
Features	<ul style="list-style-type: none"> • Low temperature cure -6.5°C (20°F) • Excellent corrosion protection • Excellent application characteristics • Fast recoat times, rapid shop turnaround • Moisture Tolerance during application • Extended recoat window for atmospheric exposures (6 months for most topcoats) • Meets current VOC restrictions
Gloss	Satin
Colour	Black, White & N53 Blue Grey plus N35 Light Grey (AUS only)
Primers	Self priming
Topcoats	Acrylics, Alkyds, Epoxies, Polyurethanes, Polysiloxanes
Dry Film Thickness	For most applications 100 – 150 microns per coat. <i>Note: Thicknesses above this range may result in higher gloss appearance which can interfere with topcoat adhesion. Follow "Curing Schedule" notes to mitigate possible adhesion issues.</i>
Solids Content	Theoretical solids mixed by volume 65±2%
Theoretical Coverage Rate	6.5 m ² per litre at 100 microns 154-230 microns WFT for 100-150 microns DFT
Mix Ratio	4:1 by volume (Part A : Part B)
VOC Values (Calculated)	296 grams per litre Value may vary with colour
Dry Temp. Resistance	Continuous 82°C Intermittent 104°C
Limitations	Epoxies lose gloss, discolour, and eventually chalk in sunlight exposure

Substrates & Surface Preparation

General	Remove any oil or grease from surface to be coated by the two rag method with clean rags soaked in Carboline Thinner #2, or Altex 10/90 Preparation Solvent Concrete Do not apply coating unless concrete has cured at least 28 days at 21°C and 50% RH or equivalent.
Steel	<u>Atmospheric Exposures:</u> For optimal performance: Hand Tool or Power Tool clean in accordance with AS1627.2 St3 or SSPC-SP 2, SSPC-SP 3, or SSPC-SP 11 to produce a rust-scale free surface. For maximum performance: AS1627.4 Class2 or SSPC-SP 6 (or greater) with a 40-75 micron blast profile. <u>Immersion Service:</u> Near-white metal cleanliness in accordance with AS1627.4 Class 2½ or SSPC-SP10 minimum
Concrete	Do not apply coating unless concrete has cured at least 28 days 21°C and 50% RH or equivalent.

Carboguard® 635

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) Listed below are the general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results. Hold gun 12-14 inches from the surface and at a right angle to the surface.

Airless Spray Pump Ratio: 30:1 min.
Volume Output: 9.5 l/min min.
Material Hose: 9.0 mm min.
Tip Size: 0.43-0.53mm (0.017-0.021")
Output Pressure: 140-175kg/cm² (2000-2500 psi)
The following spray equipment has been found suitable and is available from Graco.
Gun – Graco 207-300
Pump – Bulldog 45:1
*Teflon packings are recommended and available from pump manufacturer.

Conventional Spray Pressure pot equipped with dual regulators, 9.5mm (3/8") I.D. minimum material hose, 1.8mm (.070") I.D. fluid tip and appropriate air cap.

Brush & Roller For 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.

Mixing & Thinning

Mixing Mix separately, then combine and mix in the following proportions (4:1 ratio):

Ratio

Kit Size	5 litre	10 litre	20 litre
Part A:	4 litre	8 litre	16 litre
Part B:	1 litre	2 litre	4 litre

Thinning For atmospheric applications thin up to 8% by volume with Carboline Thinner #76 or 8% by volume per with Thinner #33 for brush and roller. For immersion, use Thinner #38E up to 8%.

Pot Life 3 hours at 24°C and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

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. 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 vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use approved supplied air respirator.

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 the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	16°-24°C	16°-24°C	16°-24°C	30-70%
Minimum	7°C	-7°C	-7°C	0%
Maximum	32°C	50°C	35°C	95%

Curing Schedule

Atmospheric / Non-Immersion** Exposure			
Surface Temp @ 50% R.H.	Dry to Handle	Dry to Topcoat Minimum	Dry to Topcoat Maximum
-7°C	36 hrs	24 hrs	180 days
2°C	16 hrs	2 hrs	180 days
10°C	10 hrs	1.5 hr	180 days
16°C	6 hrs	1 hr	180 days
24°C	3 hrs	45 min	180 days
32°C	1.5 hrs	30 min	180 days

**For immersion service refer to Altex Coatings for minimum and maximum re-coat times for application of either antifouling or a further coat of Carboguard 635.

Under no circumstances should the time between coats of Carboguard 635 exceed 30 days if the system is to be placed into immersion service.

Do not apply to substrates with ice or ice crystal formation. Apply heat and / or use dehumidifiers to remove traces of ice.

Packaging, Handling & Storage

Pack Sizes: NZ 5 and 10 litre kits
AUS 5 and 20 litre kits

Flash Point (Setaflash) Part A: 19°C
Part B: 15°C
Carboline Thinner 76 -5°C

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

Shelf Life Part A 24 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.

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