

SELECTION & SPECIFICATION DATA

Generic Type	Phenalkamine Epoxy with Non-Skid Additive* *This is an indicative data sheet giving details for modifying standard Carboguard® 690 to various grades of non-skid finish
Description	High performance, surface tolerant epoxy that has excellent resistance to water and wastewater exposures. This coating exhibits outstanding moisture tolerance during application, low temperature cure capability, and very fast cure response for quick return to service. Can be used as required on decks, walkways etc exposed to industrial or marine environments. It can also be used in splash & immersion service in salt water, process water (non-potable) and waste water treatment projects.
Features	<ul style="list-style-type: none"> • Coarse or Medium Non-Skid options • High solids, low VOC • Low temperature cure -7°C (20°F) • Fast cure response • Approved for use in NZ Food Processing Plants (refer "Approvals NZ/AU", page 4) • Available in a range of standard and tintable colours
Colour	White, N53 Blue Grey Tints - Extensive range of AS 2700, BS 5252, RAL and custom tinted colours.
Finish	Semi-Gloss (35-70) Actual final finish will be variously textured depending upon Non-Skid Additive grade used and application method.
Primer	Self-Priming, epoxy zinc-rich or epoxies
Film Build	N/A - refer to Coverage Rate information
Solid(s) Content	Theoretical solids of mixed material by volume: SBV: 84 +/- 2% (with Non-Skid Particles added)
Coverage Rate	<p>**Estimated Practical Coverage</p> <ul style="list-style-type: none"> • Coarse Finish (Median Particle Size: ~ 900 µm); Roller Application: 1.9 m2 per litre • Medium Finish (Median Particle Size: ~ 500µm); Roller Application: 3.1 m2 per litre <p>**Estimated coverage rate based on non-skid particle being 50% exposed and 50% embedded in epoxy binder. NOTE: Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.</p>
VOC Values	As Supplied : 142 g/l mixed Above VOC refers to the mix of all three components. These are nominal values and may vary with colour.
Dry Temp. Resistance	Continuous: 93°C (199°F) Non-Continuous: 121°C (250°F)
Limitations	<ul style="list-style-type: none"> • Epoxies lose gloss, discolour and eventually chalk in sunlight exposure. Discolouration is more pronounced with this product. • For immersion projects use only factory made material in standard colors. • This product has the ability to be applied over damp or even wet substrates. Remove excess water by blowing down the surface and apply in multiple coats to achieve desired film thickness. • Brush or roller, and multiple coats are preferred over wet substrates.

Carboguard 690 Non-Skid

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

General	Remove any oil or grease from surface to be coated with clean rags soaked in Thinner #2, or toluene.
Steel	<u>Non-Immersion:</u> SSPC-SP6 (AS 1627.4 Class 2); Surface Profile: 38-75 microns. In certain situations SSPC-SP3, (AS 1627.2) is acceptable for thicknesses up to 200 microns. <u>Immersion:</u> SSPC SP10, (AS 1627.4, Class 2½); Surface Profile: 38-75 microns
Concrete or CMU	Do not apply coating unless concrete has cured at least 28 days @ 21°C and 50% Relative humidity or equivalent. Clean and dry; remove all loose, unsound concrete. Consult Carboline Technical Service for more specific recommendations.

MIXING & THINNING

Mixing	Mix Part A thoroughly to achieve a consistent colour and an homogenous mix. Measure Parts A and B in the correct 4:1 v/v proportions and mix until a smooth blend is achieved followed by Non-Skid Particle additive in the following proportions (4:1:1 v/v ratio): 6 litre Kit: <ul style="list-style-type: none">• CG 690 Part A: 4 litre• CG 690 Part B: 1 litre• Non-Skid Additive: 1 x 2 kg (plastic pot) 12 litre Kit: <ul style="list-style-type: none">• CG 690 Part A: 8 litre• CG 690 Part B: 2 litre• Non-Skid Additive: 2 x 2 kg (plastic pot)
Thinning	Typically Carboguard 690 Non Skid is roller applied. Careful thinning with Thinner #25 may be required.
Pot Life	1.5 hours at 24°C and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

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.

Spray Application (General)	N/A for Medium or Coarse Non-Skid Fine Non-Skid (olefin beads) may be sprayed using pressure pot equipment and industrial spray-gun with a minimum 1.8 mm fluid tip.
Conventional Spray	Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 0.110" I.D. fluid tip and appropriate air cap.
Airless Spray	N/A
Brush & Roller (General)	Preferred Application Method: Use a napless or short nap synthetic roller cover with a phenolic core. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 24°C. Thin up to 12.5% by volume with Thinner #25.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	7°C (45°F)	-7°C (19°F)	-7°C (19°F)	0%
Maximum	32°C (90°F)	48°C (118°F)	38°C (100°F)	95%

Industry standards are for substrate temperatures to be above the dew point. For immersion conditions or long-term ponding (such as non-skid floor under wet-end of a paper machine) it is recommended to follow this procedure. For non-immersion conditions this product can tolerate damp substrates. See Brush or 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	Maximum Recoat Time
-7°C (20°F)	72 Hours	72 Hours	60 Days
2°C (35°F)	17 Hours	17 Hours	45 Days
16°C (60°F)	6 Hours	6 Hours	30 Days
24°C (75°F)	2 Hours	2 Hours	15 Days
32°C (90°F)	1 Hours	2 Hours	7 Days

Schedule above based on 50% relative humidity and 250-375 micron dry film thickness per coat. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. If the maximum recoat times have been exceeded, the surface must be abraded by sweep blasting or sanding prior to the application of additional coats. For force curing, contact Carboline Technical Service for specific requirements. For application and cure conditions below 2°C, dehumidify before, during, and after application to prevent ice formation on the surface.

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 SDS for this product. Employ normal workerlike 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. 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 suitable 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 local electrical code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

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PACKAGING, HANDLING & STORAGE

Shelf Life	<ul style="list-style-type: none">• Part A: 24 months at 24°C• Part B: 12 months at 24°C• Non-Skid Additive: >60 months @ 24°C <p>*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.</p>
Shipping Weight (Approximate)	<ul style="list-style-type: none">• 6 Litre Kit (including NS Additive*): 11.2 kg• 12 Litre Kit (including NS Additive*): 22 kg <p>*Non-Skid Additive: Medium and Coarse grades are packed as 2 kg in a part full 2 litre plastic pot. Each pot contains the equivalent of 1 litre and is suitable for treating a 5 litre kit of Carboguard® 690.</p>
Storage Temperature & Humidity	<ul style="list-style-type: none">• 4°-38°C• 0-95% Relative Humidity
Flash Point (Setaflash)	<ul style="list-style-type: none">• Part A: 33°C• Part B: 27°C• Non-Skid Additive: N/A
Storage	Store Indoors. KEEP DRY.

APPROVALS

Approvals NZ/AU	Food Processing NZ AsureQuality assessed & passed for food/beverage including dairy farm & factory non-incident contact. Ref: H3108
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WARRANTY

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