

Selection & Specification Data

Generic Type	Modified siloxane hybrid
Description	Carboxane 2000 is a premium, ultra-durable coating that provides outstanding gloss and colour retention for exterior exposures. When used over a suitable primer (as a two-coat system), Carboxane 2000 provides the barrier properties normally seen using a three-coat system (primer, epoxy intermediate with an acrylic polyurethane finish) for most environments. This tightly cross-linked film utilizes a UV-resistant siloxane binder resulting in a finish with outstanding barrier properties and weathering performance that far exceeds polyurethanes.
Features	<ul style="list-style-type: none"> - Exceptional weatherability - Long life performance - Outstanding gloss / colour retention - VOC compliant - Excellent abrasion resistance - Isocyanate free - Flexible film
Colour	Available in limited colours
Finish	Gloss
Primer	Compatible with inorganic and organic zinc rich primers, epoxies and others as recommended by StonCor Africa Technical Service.
Dry Film Thickness	75 to 175 microns per coat As the finish of a two coat system (over a primer) a minimum of 125 microns is recommended. As the finish of a three-coat system (primer and intermediate), a minimum 75 microns is recommended. See "Severe Exposures" below.
Solids Content	By Volume 75% ± 2%
Surface Burning Characteristics	Flame Spread Index: 0 Smoke Developed Index: 10
Theoretical Coverage Rate	9,8m ² /litre at 75 microns 4,2m ² /litre at 175 microns Allow for loss in mixing and application.
Severe Exposures	For severe marine environments (offshore structures) a three-coat system is recommended. For other severe exposures, a two-coat system may be used provided the minimum film thickness of 125 microns is achieved.
VOC Values	Thinned 10% with Thinner # 10 275 g/l As Supplied 216 g/l mixed These are nominal values and may vary with colour.
Dry Temperature Resistance	Continuous 93°C Non-Continuous 121°C

Substrates & Surface Preparation

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. Refer to the specific primer's product data sheet for detailed requirements of the specified primer.
Steel	ISO 8501 Sa2 with a 40 to 60 micron surface profile for maximum protection. ISO 8501 St2 or St3 as minimum requirement. Prime with recommended primer.
Galvanised Steel	SSPC-SP1 and prime with specific Carboline primers as recommended by your StonCor Africa Sales Representative.

Performance Data

Test Method	System	Results
Adhesion ASTM D4541	859/2000	9,4 MPa
Weathering EMMAQUA	2000	Exposure 12 mos. Gloss Retention 90% Exposure 24 mos. Gloss Retention 73% Exposure 32 mos. Gloss Retention 61%
Flexibility Conical Mandrel	2000	9,5mm
Pencil Hardness	2000	F
QUV-A Weathering	2000	Exposure 4000 hours Gloss Retention 99% Exposure 8000 hours Gloss Retention 80% Exposure 12000 hours Gloss Retention 53%
South Florida Weathering	2000	Exposure 4 hours Gloss Retention 90% dE: 0.45 colour change
Wet Adhesion: "X-Cut", Knife Adhesion	859/2000	No failure after 7 days

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.

Airless Spray	Pump Ratio 45 to 1 (min) Volume Output 11.5 l/min (min) Material Hose 12.5mm I.D. (min) Tip Size 0.017 to 0.021" Output Pressure 1500-2000 psi
Brush & Roller (General)	Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or re-rolling.
Brush	Use a medium natural bristle brush.
Roller	Use a short to medium-nap mohair roller cover with solvent resistant core.
Spray Application (General)	This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved.

Mixing & Thinning

Mixing	Power mix Part A separately. Part B requires no mixing. Then combine power mix. DO NOT MIX PARTIAL KITS
Thinning	Not normally required. May be thinned up to 10% with Thinner # 10 for spray, brush and roller.
Ratio	Part A: 2.2:1 Part B (by volume)
Pot Life	8 Hours at 25°C and less at higher temperatures. Material is moisture sensitive. If left uncovered for extended periods or under very high humidity conditions, check for and remove any skinning that may occur.

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Application Conditions

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C	2°C	2°C	20%
Maximum	32°C	43°C	43°C	90%

Industry standards are for substrate temperatures to be 3°C above the dew point. Protect from high humidity, dew and direct moisture contact until fully cured. Application and/or curing in humidities above maximum, or exposure to moisture from rain or dew may result in a loss of gloss and/or staining of the product.

Curing Schedule

Surface Temp & 50% Relative Humidity	Dry to Recoat	Dry to Touch	Hard Cure
2°C	24 Hours	8 Hours	30 Hours
16°C	12 Hours	3 Hours	24 Hours
24°C	6 Hours	2 Hours	18 Hours

These times are based on recommended coverage rates. Curing under low humidity conditions will extend times. Maximum recoat for this product is 30 days. After this period, it is best to degloss the surface by abrasive blasting or sanding prior to recoating.

Note: Like many coatings, this coating will develop full adhesion over the initial weeks following application.

* Hard cure = Fingernail hard

Clean-up & Safety

Clean-up Use Thinner # 2. 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 material safety data sheet for this product. Employ normal workmanlike safety precautions.

Ventilation When used 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 ensure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved supplied air respirator.

Packaging, Handling & Storage

Shelf Life Part A 12 months at 25°C
Part B 12 months at 25°C
Shelf life (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

Storage Temperature & Humidity 4 to 43°C
0 to 90% Relative Humidity

Shipping

	<u>5L Kit</u>	<u>20L Kit</u>
Part A	5.52kg	21.80kg
Part B	1.87kg	6.40kg

Flash Point (Setaflash) Part A 36°C
Part B 24°C
Thinner # 10 28°C

Storage Store indoors. KEEP DRY.

This product is solvent-based and not affected by excursions below these published storage temperatures, down to -12°C, for a duration of no more than 14 days. Always inspect the product prior to use to make sure it is smooth and homogeneous when properly mixed.



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