

SELECTION & SPECIFICATION DATA

Generic Type	Modified Siloxane Hybrid
Description	Carboxane 2000 is a premium, ultra-durable coating that provides outstanding gloss and color 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	White and selected custom tints
Finish	Gloss (70-85)
Primer	Compatible with inorganic and organic zinc rich primers, epoxies and others as recommended by Carboline Technical Service
Dry Film Thickness	76 - 178 microns (3 - 7 mils) 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 coat), a minimum of 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	29.5 m ² at 25 microns (1203 ft ² at 1.0 mils) 9.8 m ² at 75 microns (401 ft ² at 3.0 mils) 4.2 m ² at 175 microns (172 ft ² at 7.0 mils) 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	As Supplied : 216 g/l mixed These are nominal values and may vary with colour
Dry Temp. Resistance	Continuous: 93°C (199°F) Non-Continuous: 121°C (250°F)

Carboxane 2000

PRODUCT DATA SHEET



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 specific primer's Product Data Sheet for detailed requirements of the specified primer
Steel	<ul style="list-style-type: none">• Optimum: Abrasive blast to AS 1627.4 Class 2 (SSPC-SP6) with a 40-60 micron surface profile for optimum protection.• Minimum: AS 1627.2 (SSPC-SP3 as minimum requirement.• Prime with recommended primer.
Galvanized Steel	Sweep abrasive blast or power sand and prime with specific Carboline primers as recommended. <u>The prepared surface should be coated immediately after preparation.</u>

PERFORMANCE DATA

Test Method	System	Results
Adhesion: ASTM D4541	859/2000	1362 psi
EMMAQUA Weathering	2000	Exposure 12 mos. Gloss Retention 90% Exposure 24 mos. Gloss Retention 73% Exposure 32 mos. Gloss Retention 61%
Flexibility: Conical Mandrel	2000	>3/8 inch
Pencil Hardness	2000	F
QUV-A Weathering	2000	Exposure 4000 hours Gloss Retention 99% Exposure 8000 hours 80% gloss retention Exposure 12000 hours Gloss Retention 53%
South Florida Weathering	2000	Exposure 4 years Gloss Retention 90% dE: 0.45 color change
Wet Adhesion: "X-Cut", Knife Adhesion	859/2000	No failure after 7 days

MIXING & THINNING

Mixing	Power mix Part A separately. Part B requires no mixing. Then combine and power mix. DO NOT MIX PARTIAL KITS.
Thinning	Not normally required. May be thinned up to 10% with Thinner #10 for spray, and Thinner #25 for brush and roll.
Ratio	By volume: 2.2:1 (Part A : Part B)
Pot Life	8 hours at 23°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.

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)	This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers.
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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: 30:1 minimum Volume Output: 10 litres/minute minimum Material Hose: 12.5 mm I.D. minimum Tip Size: 0.017-0.021" (0.43-0.53mm) Output Pressure: 1500-2000 psi (105-140kg/cm ²)
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.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	2°C (35°F)	2°C (35°F)	20%
Maximum	32°C (90°F)	43°C (110°F)	43°C (110°F)	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.	Dry to Recoat	Dry to Touch	Hard Cure
2°C (35°F)	24 Hours	8 Hours	30 Hours
16°C (60°F)	12 Hours	3 Hours	24 Hours
24°C (75°F)	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

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.
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 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.

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PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: 12-24 months at 24°C Check container label Part B: 24 months at 24°C *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Shipping Weight (Approximate)	1 Gallon Kit (3.78 litres) - 6 kg
Storage Temperature & Humidity	4°C-43°C 0-90% Relative Humidity
Flash Point (Setaflash)	Part A: 36°C Part B: 24°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 (10°F), 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.

WARRANTY

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