product data

Carboguard® 880

Selection & Specification Data

Generic Type	Epoxy Polyamide
Description	Carboguard 880 is a high solids, low VOC, fast cure and corrosion resistant epoxy coating. It can be used as a primer or an intermediate coat over recommended primers. It may be topcoated with itself, or a broad variety of high performance finish coats. This product has excellent wetting properties giving it the capability of going over marginally prepared substrates. It is ideal for maintenance and shop fabrication applications.
Features	- Fast dry to handle and dry to topcoat/recoat times - Can be applied over marginally prepared surfaces - Low VOC and low HAP's content - Long maximum recoat window (365 days) - High build (up to 250µm DFT in a single coat) - Wide allowable thickness range per coat (75 to 250µm DFT)
Colour	Red
Finish	Satin
Primer	Self-priming. May be applied over organic zinc rich primers, inorganic zinc rich primers, and other recommended primers. A mist coat may be required to minimize bubbling over zinc rich primers.
Topcoat	Acrylics, Epoxies, Alkyds, Polyurethanes, Polysiloxanes
Dry Film Thickness	75 to 250µm per coat
Solids Content	By volume 72% ± 2%
HAPs Value	0.22kg/solid litre This is a nominal value and may vary by colour
Theoretical Coverage Rate	9.4m²/litre at 75µm 2.8m²/litre at 250µm Allow for loss in mixing and application
VOC Values	Thinner # 2: 10% - 296g/l As supplied: 238g/l These are the nominal values and may vary by colour
Dry Temp Resistance	Continuous: 149°C Prolonged exposure above 93°C may cause discolouration (darkening) but will not affect performance.
Limitations	Epoxies lose gloss, discolour and eventually chalk in sunlight exposure.

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.
Steel	For most applications: ISO 8501 Sa2 Surface Profile: 40 to 80µm
Galvanized Steel	Consult your StonCor Africa Sales Representative for specific recommendations.
Concrete or CMU	Concrete must be cured for 28 days (at 24°C/50% RH) or until the concrete reaches its designated compressive strength. Prepare and clean the surface in accordance with SSPC-SP13/NACE No. 6 guidelines. Voids in concrete may require surfacing.
Previously Painted Surfaces	ISO 8501 St2 and St3

Performance Data

Test Method	System	Results
Adhesion (ASTM D4541)	Blasted steel, one coat	13.5 MPa
Pencil Hardness (ASTM D3366)	Blasted steel, one coat	4H

Mixing & Thinning

Mixing	Power mix each component separately, then combine and power mix. Allow the mixed product to sweat in for 15 minutes before thinning if material is under 21°C. No sweat time is needed if the material temperature is above 21°C. DO NOT MIX PARTIAL KITS.
Thinning	Spray: Up to 25% with Thinner # 2. Use of thinners other than those supplied or recommended by StonCor Africa may adversely affect product performance and void product warranty, whether expressed or implied.
Ratio	Liquid Components: 1:1 Ratio (A to B)
Pot Life	4 Hours at 24°C. Pot life ends when coating loses body and begins to sag. Pot life times will be less at higher temperatures

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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.

Conventional Spray
Pressure pot equipped with dual regulators, 10mm I.D. minimum material hose, 1.8mm I.D. fluid tip and appropriate air cap.

Airless Spray
Pump Ratio: 45:1 (min)*
GPM Output: 2.5 (min)
Material Hose: 10mm I.D. (min)
Tip Size: .013-.017 (.035"-.041" for filler additives)
Output PSI: 2100-2500
Filter Size: 60 mesh (remove mesh for filler additives)
* PTFE packings are recommended and available from the pump manufacturer.

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. For best results, apply additional coats within 10 minutes at 24°C.
Brush: Use a medium bristle brush
Roller: Use a short nap roller with phenolic core.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C	2°C	2°C	0%
Maximum	32°C	60°C	49°C	85%

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

Curing Schedule

Surface Temp & 50% Relative	Dry to Handle	Dry to Recoat & Topcoat w/ other finishes	Dry to Touch	Maximum Recoat Time
4°C	18 Hours	18 Hours	3 Hours	1 Year
10°C	12 Hours	12 Hours	90 Minutes	1 Year
16°C	6 Hours	6 Hours	60 Minutes	1 Year
24°C	4 Hours	4 Hours	45 Minutes	1 Year
32°C	2 Hours	2 Hours	30 Minutes	1 Year

These times are based on a 100µm dry film thickness. Higher film thicknesses, insufficient ventilation, or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Low temperatures, excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration, and may result in a surface blush. If product has been cured under such conditions, surface should be washed and dried prior to topcoating.

For overcoating within the recoat interval. Must have a clean, dry surface free of chalk, salts, etc. per typical good painting practices. Consult StonCor Africa Technical Services for specific information.

If the maximum recoat times have been exceeded, the surface must be abraded by sweep blasting or sanding prior to the overcoating, ensuring substrate is dust-free. Carboguard 880 applied below 4°C may temporarily soften for several hours after temperatures rise to 16°C. This is a normal condition and will not affect performance.

Cleanup & Safety

Cleanup
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 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 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 MSHA/NIOSH approved 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.

Packaging, Handling & Storage

Shelf Life
Part A & B: Min. 36 months at 25°C.

Shelf life (actual stated shelf life) when kept at recommended storage conditions and in original, unopened containers.

Shipping Weight (Approximate)
10 Litre Kit = 16.64kg
Part A = 8.45kg
Part B = 8.19kg

Storage Temperature & Humidity
4°C to 38°C

0-100% Relative Humidity

Flash Point (Setaflash)
Part A: 10°C
Part B: 21°C

Storage
Store indoors. 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 homogenous when properly mixed.

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Coatings - Linings - Fireproofing

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