

SELECTION & SPECIFICATION DATA

Generic Type	A two-component phenalkamine epoxy
Description	Carboguard 633 is a heavy duty, high build primer or intermediate coating for protection of steel in corrosive environments. Can be used on aluminum and galvanization. Low temperature curing and fast overcoatable.
Features	<ul style="list-style-type: none"> • Fast overcoatable with 2K topcoats • Excellent anti-corrosive properties • Applicable as one-coat system up to corrosion class C4 (ISO 12944-2) • Applicable up to corrosion class C5(H) with suitable primer • Excellent flowability, also at low DFT • Very good abrasion resistance.
Color	Light grey
Finish	Semi-Gloss
Primer	Self-priming. Can be applied over most tightly adhering coatings.
Wet Film Thickness	110 - 270 µm per coat.
Dry Film Thickness	80 - 200 microns (3.15 - 7.87 mils) per coat
Solid(s) Content	By volume: 74 ± 2%
Theoretical Coverage Rates	6.2 m ² /l at 120 µm DFT Allow for loss in mixing and application.
Dry Temp. Resistance	Continuous: 120°C (248°F) Non-Continuous: 150°C (302°F)
Approvals	Grain, Newcastle Occupational Health and Hygiene.
Limitations	Epoxies discolour and eventually chalk in sunlight exposure.
Topcoats	Carbothane 156 SG for ISO 12944-systems. Other topcoats according to Carboline recommendations.

SUBSTRATES & SURFACE PREPARATION

General	Surface 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	Abrasive blast cleaning to min. Sa 2 (ISO 8501-1).
Galvanized Steel	Light sweep-blasting to attain even roughness (SaS)
Aluminum	Light sweep-blasting to attain even roughness (SaS). Alternatively wash surface with alkaline detergent, e.g. Carboline Surface Cleaner No.3.

MIXING & THINNING

Mixing	Power mix separately, then add part B to Part A and power mix. DO NOT MIX PARTIAL KITS.
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Carboguard 633

PRODUCT DATA SHEET



MIXING & THINNING

Thinning | Typically not necessary. May be thinned up to 10% with Carboline Thinner #2.

Ratio | 2 : 1 (A to B) by volume.

Pot Life | 1.5 hour at 20°C and longer at lower temperatures.

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: 30:1 (min.)*
GMP Output: 3.0 (min.)
Material Hose: 3/8" I.D. (min.)
Tip Size: .015-.019"
Output PSI: 2400
Filter Size: 60 mesh

* Teflon packings are recommended and available from the pump manufacturer.

Brush & Roller (General) | For small areas and stripe coating only. Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding.

Brush | Use a medium bristle brush.

Roller | Use a medium nap phenolic core roller.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	-5°C (23°F)	-5°C (23°F)	-5°C (23°F)	0%
Maximum	35°C (95°F)	50°C (122°F)	40°C (104°F)	85%

Industry standards are for substrate temperatures to be 3°C 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.	Dry to Touch	Dry to Handle	Dry to Recoat	Cure for Service
-5°C (23°F)	24 Hours	48 Hours	24 Hours	30 Days
5°C (41°F)	10 Hours	20 Hours	10 Hours	21 Days
10°C (50°F)	6 Hours	12 Hours	6 Hours	14 Days
15°C (59°F)	4 Hours	8 Hours	4 Hours	7 Days
23°C (73°F)	3 Hours	6 Hours	3 Hours	5 Days

The above times are based on recommended DFT. Higher DFT, insufficient ventilation or lower ambient temperatures would cause longer curing times. *Maximum recoating time up to 6 months depending on temperature and curing conditions. If exceeded, contact Carboline for further information about recoating procedures

CLEANUP & SAFETY

Cleanup	Use Carboline 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.
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 applicable regulations. 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	24 months at 24°C
Storage Temperature & Humidity	5° - 45°C 0 - 95% relative humidity
Storage	Store indoors
Packaging	Part A 10 litres Part B 5 litres

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.