# Carboguard 703 HG

PRODUCT DATA SHEET

## SELECTION & SPECIFICATION DATA

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| **Generic Type** | Amine cured epoxy |
| **Description** | Solvent-free, high performance coating for use on steel and concrete substrates. It has extremely good impact and superior adhesion. It is suitable for variety of heavy industrial applications including municipal waste water and water treatment facilities. |
| **Features** | • High film build and edge protection<br>• Excellent resistance to water and salt water<br>• Suitable for man-hole cover<br>• Application by airless spray equipment<br>• Meets most VOC (Volatile Organic Content) regulations |
| **Color** | Grey, black, other colors on application in batch quantities |
| **Finish** | Gloss |
| **Primer** | Self-priming |
| **Dry Film Thickness** | 400-1000 microns<br>Max 500 microns per coat |
| **Solid(s) Content** | By Volume 98% +/- 2% |
| **Theoretical Coverage Rates** | 1.96 m²/l at 500 microns<br><br>Allow for loss in mixing and application. |
| **Dry Temp. Resistance** | Continuous: 93°C (199°F)<br>Non-Continuous: 121°C (250°F)<br><br>Discoloration and loss of gloss is observed above 200°F (93°C). |
| **Limitations** | Epoxies lose gloss, discolor and eventually chalk in sunlight exposure. |
| **Topcoats** | Normally not required.<br>Polyurethanes for non-immersion service when required.<br>Brush blasting or special cleaning procedures may be required. |
| **Wet Temp. Resistance** | Immersion temperature resistance depends upon exposure. Consult StonCor ME Technical Service for specific information. |

## SUBSTRATES & SURFACE PREPARATION

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| **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** | Immersion: SSPC-SP10 – 3-4 mils<br>Non-Immersion: SP10 – 2-3 mils |
| **Concrete** | Immersion and Non-Immersion: Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing. |

## MIXING & THINNING

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| **Mixing** | Power mix separately, then combine and power mix.<br>DO NOT MIX PARTIAL KITS. |
| **Thinning** | Thin up to 10% of Thinner 19<br><br>Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied. |
| **Ratio** | 4:1 Ratio (A to B) |
| **Pot Life** | 45 minutes at 75°F (24°C). Pot life ends when material begins to thicken and starts to heat up. Pot life times will be less at higher 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.

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| **Spray Application** | Recommended for application by single or plural component airless spray. This is 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 manufactures such as Binks, DeVilbiss and Graco. |
| **Conventional Spray** | Not recommended |
| **Airless Spray** | Pump Ratio: 45:1 (min.)<br>GPM Output: 3.0 (min.)<br>Material Hose: ½" I.D. (min)<br>Tip Size: 0.025 - 0.035"<br>Output PSI: 2700-3000<br>Filter Size: 60 mesh<br><br>Teflon packings are recommended and available from the pump manufacturer. Contact StonCor ME Technical Service for plural component equipment recommendations. |
| **Brush & Roller (General)** | Not recommended for tank lining applications except when striping welds. |
| **Brush** | For touch up and limited areas only |
| **Roller** | For touch up and limited areas only |

## APPLICATION CONDITIONS

| Condition | Material | Surface | Ambient | Humidity |
|---|---|---|---|---|
| Minimum | 10°C (50°F) | 10°C (50°F) | 10°C (50°F) | 0% |
| Maximum | 32°C (90°F) | 52°C (126°F) | 43°C (109°F) | 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. To reduce out gassing when applying to concrete substrates, do not apply in direct sunlight or when surface temperatures are increasing. Best results are obtained when ambient and surface temperatures are decreasing or constant.

## CURING SCHEDULE

| Surface Temp. | Dry to Handle or Recoat | Final Cure | Maximum Recoat Time |
|---|---|---|---|
| 16°C (61°F) | 24 Hours | 14 Days | 2 Days |
| 24°C (75°F) | 7 Hours | 10 Days | 24 Hours |
| 32°C (90°F) | 5 Hours | 7 Days | 16 Hours |

These times are based on a 10 mils (250 microns) dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times. Condensation on the surface or humidity above 25% during application and curing will result in a surface haze or blush. Any haze or blush be removed by water washing before recoating. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the maximum recoat times is exceeded, the surface must be washed with detergent and water, then abraded by sweep blasting prior to the application of additional coats. **For force curing, contact StonCor ME Technical Service for specific requirements. *Note:** Final cure temperatures below 60°F (16°C) are not recommended for tank linings.

## CLEANUP & SAFETY

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| **Cleanup** | Use #2 Thinner 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** | Vapors and/or spray mist may cause explosion. 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. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel. |

## PACKAGING, HANDLING & STORAGE

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| **Shelf Life** | 24 months at 75°F (24°C)<br><br>***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.** |
| **Shipping Weight (Approximate)** | 19-Liter Kit: 30 Kg |
| **Storage Temperature & Humidity** | Storage Temperature: 40°-110°F (4°-43°C)<br>Relative Humidity: 0-100% |
| **Flash Point (Setaflash)** | Part A: 100°C<br>Part B: 100°C |
| **Storage** | Store indoors |

## WARRANTY

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