SELECTION & SPECIFICATION DATA

Generic Type  | Epoxy polyamide with corrosion inhibitor (zinc phosphate)
Description  | Versatile corrosion resistant coating. Used either as a primer, intermediate coat. May be topcoated with itself, or a broad variety of high performance finish coats. Product also has surface tolerant properties.

  • Ready to apply after mixing; no sweat-in time or thinning required.
  • Economical fit for use epoxy
  • Used as a primer or intermediate.
  • Power tool cleaned surfaces acceptable
  • VOC compliant to current AIM regulations
  • MiO version available

Features

Color  | Primer colors (0700) gray and (0500) red.

Finish  | Eggshell
         | Low sheen

Primer  | Self-priming. May be applied over zinc rich primers. A mist coat may be required to minimize bubbling over inorganic zinc rich primers.

Dry Film Thickness  | 3.0-5.0 mils (75-125 microns) per coat as a primer or an intermediate. Do not exceed 8 mils (175 microns) in a single coat. Excessive film thickness over inorganic zins may increase damage during shipping or erection.

Solids Content  | By Volume 64% +/- 3%

Theoretical Coverage Rate  | 25.2 m²/l at 25 microns (1027 ft²/gal at 1.0 mils)
         | Allow for loss in mixing and application.

VOC Values  | As Supplied : 2.65 lbs/gal (318 g/l)
               | Thinner 10 : 15 oz/gal = 3.12 lbs/gal (374 g/l)
               | Thinner 236 E : 16 oz/gal = 2.85 lbs/gal (318 g/l)
               | Thinner 243 E : 16 oz/gal = 2.80 lbs/gal (336 g/l)
               | Thinner 33 : 16 oz/gal = 3.17 lbs/gal (360 g/l)

These are nominal values and may vary slightly with color.

Dry Temp. Resistance  | Continuous: 93°C (200°F)
                       | Non-Continuous: 121°C (250°F)

Discoloration and loss of gloss is observed above 200 F (93 C).

Limitations  | Epoxies lose gloss, discolor and eventually chalk in sunlight exposure. Not recommended for immersion service.

Topcoats  | Acrylics, Alkyds, Epoxies, Polyurethanes

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.
SUBSTRATES & SURFACE PREPARATION

Steel
- For most applications: SSPC-SP6 to obtain a blast profile of 1.0-2.0 mils (25-50 microns). May also be applied over SSPC-SP3 for certain applications.

Galvanized Steel
- Galvanizing requires a roughened surface for optimum adhesion/performance of high build epoxies. Remove any contaminants per SSPC SP1; ensure there are no chemical treatments that may interfere with adhesion; and abrade the surface to establish a suitable roughness (typically 1 mil). SSPC-SP7 or SP11 are acceptable methods.

Concrete or CMU
- 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.

PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

<table>
<thead>
<tr>
<th>Test Method</th>
<th>System</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM B117 Salt Spray</td>
<td>Blasted Steel 1 ct. 823 5 mils</td>
<td>No blistering, flaking, chipping, cracking or peeling after 1500 hours.</td>
</tr>
<tr>
<td>ASTM D 4541 Adhesion</td>
<td>Blasted Steel 2 ct. 823</td>
<td>1600 psi (Pneumatic)</td>
</tr>
</tbody>
</table>

MIXING & THINNING

Mixing
- Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.

Thinning
- Normally not required but may thin as follows: Spray: Up to 15 oz/gal (12%) w/ Thinner #10
- Brush & Roller: Up to 16 oz/gal (12%) w/ Thinner #33
- Thinner 236E or 243E may be used as an exempt thinner in lieu of those listed above. 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
- 1:1 Ratio (A to B)

Pot Life
- 4 Hours at 75°F (24°C). Pot life ends when coating thickens and loses application properties. 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.

Spray Application
- The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVIlbiss and Graco.

Conventional Spray
- Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap.
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.)*
- GPM Output: 2.5 (min.)
- Material Hose: 3/8” I.D. (min.)
- Tip Size: .015-.021”
- Output PSI: 2100-2300
- Filter Size: 60 mesh
* Teflon 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 rerolling. For best results, tie-in within 10 minutes at 75°F (24°C).

**Brush**
Use a medium bristle brush.

**Roller**
Use 3/8” nap phenolic core roller.

APPLICATION CONDITIONS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Material</th>
<th>Surface</th>
<th>Ambient</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>10°C (50°F)</td>
<td>2°C (36°F)</td>
<td>2°C (36°F)</td>
<td>0%</td>
</tr>
<tr>
<td>Maximum</td>
<td>32°C (90°F)</td>
<td>52°C (126°F)</td>
<td>43°C (109°F)</td>
<td>85%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Surface Temp.</th>
<th>Maximum Recoat Time</th>
<th>Dry to Recoat or Topcoat</th>
</tr>
</thead>
<tbody>
<tr>
<td>2°C (36°F)</td>
<td>120 Days</td>
<td>24 Hours</td>
</tr>
<tr>
<td>10°C (50°F)</td>
<td>120 Days</td>
<td>18 Hours</td>
</tr>
<tr>
<td>16°C (61°F)</td>
<td>90 Days</td>
<td>7 Hours</td>
</tr>
<tr>
<td>24°C (75°F)</td>
<td>90 Days</td>
<td>6 Hours</td>
</tr>
<tr>
<td>32°C (90°F)</td>
<td>90 Days</td>
<td>2 Hours</td>
</tr>
</tbody>
</table>

These times are based on a 4.0-5.0 mil (100-125 micron) dry film thickness for atmospheric exposures. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. If the maximum recoat times have been exceeded, the surface must be abraded by sweep, blasting or sanding prior to the application of additional coats. For force curing, contact Carboline Technical Service for specific requirements.

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. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.
CLEANUP & SAFETY

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.

PACKAGING, HANDLING & STORAGE

Shelf Life
Part A & B: Min. 24 months at 75°F (24°C)
*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

Shipping Weight
20 l kit. (Approximately 29 Kg)

Storage Temperature & Humidity
40° - 110°F (4°-43°C)
0-100% Relative Humidity

Flash Point (Setaflash)
Carboguard 823 Part A: 75°F (24°C)
Carboguard 823 Part B: 88°F (31°C)

Storage
Store Indoors.

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.