Rustbond
PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type  Polymeric epoxy amine.

Description
- Rustbond is a cross-linked penetrating primer/sealer with excellent wetting properties. It is highly flexible with good chemical and solvent resistance, and accepts a variety of topcoats.
- Recommended to use as a primer/sealer for marginally prepared steel and over old coatings. Its excellent wetting properties allows it to penetrate rust and discontinuities in existing coatings and it provides a firm anchor for a variety of topcoats. Its thixotropic character reduces run off, ensuring that the edges of existing coatings are encapsulated, thus reducing undercutting and peeling. It may also be used as a tie-coat for coatings that exceed their “recoat window.” Consult Carboline Technical Services Department for specific recommendations.
- Universal primer and tie-coat
- Penetrates and binds surface rust
- Excellent adhesion to AS 1627.2 (tool cleaned) prepared steel, galvanizing, aluminium, stainless steel and copper
- Low stress, highly flexible film
- Extremely high solids
- Low odour
- Contains corrosion inhibitors
- Compatible with a variety of topcoats
- User friendly brush and roller application

Features
- Translucent Green

Finish
- High Gloss (85-100)
- Chalks rapidly in sunlight.

Primer
- Self-priming. May be applied over most generic types of coatings.

Dry Film Thickness
- 25 - 51 microns (1 - 2 mils) per coat

Solids Content
- By Volume 99% +/- 1%

Theoretical Coverage Rate
- 39.0 m² at 25 microns (1588 ft² at 1.0 mils)
- 19.5 m² at 50 microns (794 ft² at 2.0 mils)
- Allow for loss in mixing and application.

VOC Values
- As Supplied: 85 g/l EPA Method 24
- These are nominal values

Dry Temp. Resistance
- Continuous: 79°C (175°F)
- Non-Continuous: 93°C (200°F)
- Discolouration and loss of gloss is observed above 80°C

Limitations
- Epoxies lose gloss, discolour and eventually chalk in sunlight exposure.
- Do not use for immersion service.
- Rustbond sealers must be topcoated.

Topcoats
- Acrylics, alkyds, epoxies, polyurethanes

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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
Hand or Powertool Clean to SSPC SP2 or SP3 (AS 1627.2-hand or power tool cleaned)
In some instances High pressure watercleaning at 5,000 to 15,000 psi will provide a paintable surface.
Consult Carboline Technical Services for further advice.

Previously Painted Surfaces
A test patch is recommended to verify compatibility with existing coating. Existing paint must attain a minimum 3A rating in accordance with ASTM D3359 “X-Scribe” adhesion test.
Aged coatings will require a minimum preparation of High Pressure Watercleaning at 5,000 psi or greater. Spot hand or powertool cleaning of corroded/failed areas will provide a sound substrate on which to apply Rustbond.

MIXING & THINNING

Mixing
Power mix components separately to break down any gel. Keep the mixing blade at slow speed and submerged in the product to minimise whipping of air into the material. Scrape the sides of the container occasionally to ensure uniformity. Continue to mix for 1-2 minutes. DO NOT MIX PARTIAL KITS, and do not intermix unpaired components.

Thinning
Thinning not normally required but may be thinned up to 10% with Thinner #2. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether express or implied.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>1 Litre Kit</th>
<th>Part A: 500 ml</th>
<th>Part B: 500 ml</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4 Litre Kit</td>
<td>Part A: 2 litres</td>
<td>Part B: 2 litres</td>
</tr>
</tbody>
</table>

Pot Life
- Tested for 1 litre mix:
  - 80 minutes at 21°C
  - 50 minutes at 27°C
  - 40 minutes at 32°C
  - 30 minutes at 38°C
- Pot life ends when material begins to thicken and exotherm.

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)
  Contact Carboline Technical Service for specific application instructions.

- Brush & Roller (General)
  Avoid excessive re-brushing or re-rolling. Apply enough material to uniformly wet the surface. Any puddles or heavy runs formed must be brushed out to nominal 30-50 microns.

- Brush
  Use a medium bristle brush and distribute evenly using full brush strokes.

- Roller
  Use a medium to long nap roller suitable for solvent base materials to evenly distribute the material.
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>16°C (60°F)</td>
<td>21°C (70°F)</td>
<td>21°C (70°F)</td>
<td>0%</td>
</tr>
<tr>
<td>Maximum</td>
<td>38°C (100°F)</td>
<td>54°C (130°F)</td>
<td>43°C (110°F)</td>
<td>90%</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>Dry to Handle</th>
<th>Dry to Topcoat</th>
<th>Final Cure General</th>
</tr>
</thead>
<tbody>
<tr>
<td>21°C (70°F)</td>
<td>34 Hours</td>
<td>18 Hours</td>
<td>9 Days</td>
</tr>
<tr>
<td>27°C (80°F)</td>
<td>22 Hours</td>
<td>12 Hours</td>
<td>6 Days</td>
</tr>
<tr>
<td>32°C (90°F)</td>
<td>14 Hours</td>
<td>9 Hours</td>
<td>4 Days</td>
</tr>
<tr>
<td>38°C (100°F)</td>
<td>11 Hours</td>
<td>4 Hours</td>
<td>3 Days</td>
</tr>
</tbody>
</table>

* These times are based on 50% relative humidity and 25-50 microns dry film thickness. 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 discolouration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. During high humidity conditions, it is recommended that the application be done while temperatures are increasing.

<table>
<thead>
<tr>
<th>Surface Temp.</th>
<th>Maximum Recoat Time</th>
<th>Maximum Recoat Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acrylics &amp; Alkydys</td>
<td>Epoxies &amp; Urethanes</td>
</tr>
<tr>
<td>21°C (70°F)</td>
<td>14 Days</td>
<td>30 Days</td>
</tr>
<tr>
<td>24°C (75°F)</td>
<td>14 Days</td>
<td>30 Days</td>
</tr>
<tr>
<td>32°C (90°F)</td>
<td>7 Days</td>
<td>15 Days</td>
</tr>
</tbody>
</table>

* These times are based on 50% relative humidity and 25-50 microns dry film thickness. If the maximum recoat time is exceeded the surface must be abraded by sweep blasting or by the application of another coat of Rustbond before applying any additional coatings.

CLEANUP & SAFETY

Cleanup
Use Thinner #2 or Thinner #76. 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 SDS 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 suitable approved respirator.

**THIS PRODUCT EXOTHERMS AT THE END OF ITS POT LIFE.** Any unused quantities will become extremely hot. Immediately spread out on an appropriate surface or add sand or other suitable heat sink to the unused material to reduce the severity of exotherm. Take appropriate precautions against breathing fumes. This product may contain flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the electrical 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

<table>
<thead>
<tr>
<th>Shelves Life</th>
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</thead>
<tbody>
<tr>
<td>Part A &amp; B: Min. 36 months at 24°C*</td>
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</table>

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

<table>
<thead>
<tr>
<th>Shipping Weight (Approximate)</th>
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<tbody>
<tr>
<td>1 litre Kit - 1.5 kg</td>
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<tr>
<td>4 litre Kit - 6 kg</td>
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<table>
<thead>
<tr>
<th>Storage Temperature &amp; Humidity</th>
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</thead>
<tbody>
<tr>
<td>4°-43°C</td>
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<tr>
<td>0-90% Relative Humidity</td>
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<table>
<thead>
<tr>
<th>Flash Point (Setaflash)</th>
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</thead>
<tbody>
<tr>
<td>Part A: 96°C</td>
</tr>
<tr>
<td>Part B: 80°C</td>
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</table>

<table>
<thead>
<tr>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Indoors.</td>
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WARRANTY
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