

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 accept a variety of topcoats. Recommended use as primer/sealers for marginally prepared steel and over old coatings. Its excellent wetting properties allows it to penetrate rust and discontinuities in existing coatings and provide a firm anchorage 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.
Features	<ul style="list-style-type: none"> • Universal primer and tie-coat • Excellent adhesion to SSPC-SP 2 prepared steel, galvanizing, aluminum, stainless steel and copper • Low stress, highly flexible film • Extremely high solids • Low odor • Contains corrosion inhibitors • Compatible with a variety of topcoats • User friendly brush and roller application • VOC compliant to current AIM regulations
Color	Translucent Green (0300)
Finish	High Gloss Chalks rapidly in sunlight.
Primer	Self-priming. May be applied over most generic types of coatings.
Dry Film Thickness	1 - 2 mils (25 - 51 microns) per coat
Solids Content	By Volume 99% +/- 1%
Theoretical Coverage Rate	1588 ft ² /gal at 1.0 mils (39.0 m ² /l at 25 microns) 794 ft ² /gal at 2.0 mils (19.5 m ² /l at 50 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 0.7 lbs./gal (85 g/l) EPA Method 24 Thinner 76 : 12 oz/gal: 1.22 lbs/gal (147 g/l) These are nominal values
Dry Temp. Resistance	Continuous: 175°F (79°C) Non-Continuous: 200°F (93°C) Discoloration and loss of gloss is observed above 175°F (80°C)
Limitations	<ul style="list-style-type: none"> • Epoxies lose gloss, discolor and eventually chalk in sunlight exposure • Do not use for immersion service • Rustbond sealers must be topcoated
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.
Steel	SSPC-SP2 or SP3 When using under fireproofing products, defer to the primer surface preparation requirements in the product data sheet of the fireproofing product.
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.
Non-Ferrous Metals	Surface profile should be a dense angular 1.5 - 3 mils and is best achieved through abrasive blasting in accordance with SSPC-SP16 for atmospheric exposure.

PERFORMANCE DATA

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

Test Method	System	Results
Adhesion (ASTM D4541)	1 yr. old Epoxy 1 ct. RBPS	1911 psi (Pneumatic)
Adhesion (ASTM D4541)	2 yr. old Alkyd 1 ct. RBPS	1769 psi (Pneumatic)
Adhesion (ASTM D4541)	3 yr. old Epoxy 1 ct. RBPS	1749 psi (Pneumatic)
Adhesion (ASTM D4541)	Aluminum 1 ct. RBPS	3366 psi (Pneumatic)
Adhesion (ASTM D4541)	Copper 1 ct. RBPS	3418 psi (Pneumatic)
Adhesion (ASTM D4541)	Galvanized Steel 1 ct. RBPS	500 psi (Pneumatic)
Adhesion (ASTM D4541)	Mil Scale Steel 1 ct. RBPS	2847 psi (Pneumatic)
Adhesion (ASTM D4541)	Rusted, SP2-Cleaned Steel 1 ct. RBPS 1ct. Acrylic	1504 psi (Pneumatic)
Adhesion (ASTM D4541)	Rusted, SP2-Cleaned Steel 1 ct. RBPS 1ct. Alkyd	1015 psi (Pneumatic)
Adhesion (ASTM D4541)	Rusted, SP2-Cleaned Steel 1 ct. RBPS 1ct. Epoxy	1993 psi (Pneumatic)
Adhesion (ASTM D4541)	Rusted, SP2-Cleaned Steel 1 ct. RBPS 1ct. Urethane	1470 psi (Pneumatic)
Weatherometer (ASTM G26)	Rusted, SP2-Cleaned Steel 1 ct. RBPS 1 ct. Polyurethane	No blistering, no rusting, cracking or delamination after 2000 hours

Test reports and additional data available upon written request.

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 minimize whipping of air into the material. Scrape the sides of the container occasionally to insure uniformity. Continue to mix for 1-2 minutes. DO NOT MIX PARTIAL KITS , and do not intermix unpaired components.
Thinning	<p>Preferred Thinner Uses and Application: Thinning not normally required but may be thinned up to 9% (12 oz/gal) with Thinner #76.</p> <p>Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether express or implied.</p>
Ratio	<p>.5 Gallon Kit Part A: 1 Quart (0.25 gal) Part B: 1 Quart (0.25 gal)</p> <p>2 Gallon Kit Part A: 1 Gallon Part B: 1 Gallon</p>
Pot Life	<ul style="list-style-type: none"> • For 1/2 gal units: • 80 minutes at 70°F (21°C) • 50 minutes at 80°F (27°C) • 40 minutes at 90°F (32°C) • 30 minutes at 100°F (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 formed must be brushed out.
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

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	70°F (21°C)	70°F (21°C)	0%
Maximum	100°F (38°C)	130°F (54°C)	110°F (43°C)	90%

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.	Dry to Handle	Dry to Topcoat	Final Cure General
70°F (21°C)	34 Hours	18 Hours	9 Days
80°F (27°C)	22 Hours	12 Hours	6 Days
90°F (32°C)	14 Hours	9 Hours	4 Days
100°F (38°C)	11 Hours	4 Hours	3 Days

* These times are based on 50% relative humidity and 1.0–2.0 mils (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 discoloration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. When using under fireproofing products, defer to the primer surface preparation requirements in the product data sheet of the fireproofing product. During high humidity conditions, it is recommended that the application be done while temperatures are increasing.

Surface Temp.	Maximum Recoat Time Acrylics & Alkyds	Maximum Recoat Time Epoxies & Urethanes
70°F (21°C)	14 Days	30 Days
75°F (24°C)	14 Days	30 Days
90°F (32°C)	7 Days	15 Days

* These times are based on 50% relative humidity and 1-2 mils (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 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 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 MSHA/NIOSH approved respirator.
Caution	<u>THIS PRODUCT EXOTHERMS AT THE END OF ITS POT LIFE.</u> 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 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 75°F (24°C)* *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
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PACKAGING, HANDLING & STORAGE

Storage Temperature & Humidity | 40° - 110°F (4°-43°C)
0-90% Relative Humidity

Storage | Store Indoors.

Shipping Weight (Approximate) | 0.5 Gallon Kit - 6 lbs. (3 kg)
2 Gallon Kit - 22 lbs. (10 kg)

Flash Point (Setaflash) | • Part A: 205°F (96°C)
• Part B: 176°F (80°C)

WARRANTY

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