SELECTION & SPECIFICATION DATA

Generic Type	Cycloaliphatic Amine Epoxy with Glass Reinforcement
Description	A glass reinforced chemically resistant epoxy coating with wide versatility in all industrial markets. It is self-priming. Glass reinforcement improves internal film strength, hardness, impact, and abrasion resistance. It is often used in severe service (above or below the water line) in marine applications where these resistance qualities are desired.
Features	• Excellent chemical resistance • Surface tolerant characteristics for less severe applications • Low-temperature version: 890 LT GF • Self-priming and primer/finish capabilities • Excellent abrasion resistance & hardness • VOC compliant to current AIM regulations • Non-skid service with optional fillers
Color	C900 (Black), S800 (White), C703 (Grey), C705 (Light Grey), 0500 (Tile Red), 5555 (Safety Red), 0200 (Tan), 6666 (Safety Yellow), 1675 (Ignition Yellow) Other colors may be available on request. Contact your Carboline Representative for availability.
Finish	Flat
Primer	Normally self-priming. May be applied over epoxy primers.
Dry Film Thickness	8 - 20 mils (203 - 508 microns) per coat
Solids Content	By Volume 77% +/- 2%
Theoretical Coverage Rate	1235 ft²/gal at 1.0 mils (30.3 m²/l at 25 microns) 154 ft²/gal at 8.0 mils (3.8 m²/l at 200 microns) 62 ft²/gal at 20.0 mils (1.5 m²/l at 500 microns) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 1.6 lbs/gal (192 g/l) Thinner 2 : 13 oz/gal: 2.1 lbs./gal (230 g/l) Thinner 213 : 13 oz/gal: 2.1 lbs/gal (251 g/l) Thinner 33 : 16 oz/gal: 2.2 lbs/gal (248 g/l) Use Thinner 76 up to 16 oz per gallon where on-photochemically reactive solvents are required.
Dry Temp. Resistance	Continuous: 400°F (204°C) Non-Continuous: 400°F (204°C) Discoloration and loss of gloss occurs above 200°F (93°C) but does not affect performance.
Under Insulation Resistance	Continuous: 300°F (149°C) Discoloration and loss of gloss occurs above 200°F (93°C) but does not affect performance.
Limitations	Epoxies may lose gloss, discolor and chalk when exposed to sunlight. Do not apply over acrylic or alkyd coatings. If discoloration is objectionable it may be top coated. Use only factory-made colors for splash zone or immersion service.
Topcoats	May be coated with acrylics, epoxies or polyrethanes depending upon exposure and need.

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	Immersion: NACE No. 2/SSPC-SP10 Profile: 3.0-4.0 mils (75-100 microns) Non-Immersion: NACE No. 3/SSPC-SP6 Profile: 2.0-3.0 mils (50-75 microns) SSPC-SP2, SP3 or SP15 are suitable cleaning methods for mild (non-immersion) environments and touch up.
Galvanized Steel	Abrasive blast as per SSPC-SP16 to achieve a minimum 2-3 mils (50-75 microns) profile.
Concrete or CMU	NACE No. 6/SSPC-SP13 and create surface profile of ICRI CSP 3 to 4.
Previously Painted Surfaces	Lightly abrade to remove gloss and roughen surface. Existing paint must attain a minimum 3A rating in accordance with ASTM D3359 “X-Cut” adhesion test.

MIXING & THINNING

Mixing	Power mix A & B separately, then combine and power mix. Then slowly add the Glass Flake Additive and power mix for 3-5 minutes. DO NOT MIX PARTIAL KITS.
Thinning	Spray: Up to 13 oz/gal (10%) w/ #2 Brush: Up to 16 oz/gal (12%) w/ #33 Vertical Surfaces: Up to 13 oz/gal (10%) w/ #213, #2 or #33 Thinner #33 can be used for spray in hot/windy conditions. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied. *See VOC values for thinning limits.
Ratio	1:1 Ratio (A to B) plus 1 bag (3.62 lbs/2 gal mix)
Pot Life	890 GF 3 Hours at 75°F (24°C) Pot life ends when coating loses body and begins to sag. 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 (General)	This is a 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 manufacturers such as Binks, DeVilbiss, Graco and WIWA.
Conventional Spray	Pressure pot equipped with dual regulators, 3/8” I.D. minimum material hose, .110” I.D. fluid tip and appropriate air cap.
Airless Spray	Pump Ratio: 30:1 (min.)* GPM Output: 3.0 (min.) Material Hose: 3/8” I.D. (min.) Tip Size: .025”-.035” Output PSI: 2200-2500 *Teflon packings are recommended and available from the pump manufacturer.

APPLICATION EQUIPMENT GUIDELINES

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

Brush | Use a medium bristle brush for touch up and striping of welds only.

Roller | Not recommended.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	125°F (52°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 Recoat	Dry to Topcoat w/ Other Finishes	Final Cure General
50°F (10°C)	12 Hours	24 Hours	3 Days
60°F (16°C)	8 Hours	16 Hours	2 Days
75°F (24°C)	4 Hours	8 Hours	24 Hours
90°F (32°C)	2 Hours	4 Hours	16 Hours

Higher film thickness, insufficient ventilation and/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. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. **Maximum recoat/topcoat times are 30 days for epoxies and 90 days for polyurethanes at 75°F (24°C).** If the maximum recoat times have been exceeded, the surface must be abraded by sweep blasting or sanding to create mechanical anchor profile prior to the application of additional coats.

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. 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. 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 supplied air respirator.

CLEANUP & SAFETY

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 the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: 36 months at 75°F (24°C) Part B: 15 months at 75°F (24°C) Glass Flake Additive – 60 months at 75°F (24°C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	40° -110°F (4°-43°C) 0-100% Relative Humidity
Storage	Store Indoors.
Shipping Weight (Approximate)	2.181 Gallon Kit - 33 lbs (15 kg)
Flash Point (Setaflash)	Part A: 89°F (32° C) Part B: 73°F (23°C) N/A for Glass Flake Additive Mixed: 78°F (26°C)

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.