RR&C Metal Repair Fluid

SELECTION & SPECIFICATION DATA

Type
Polyamide Epoxy

Description
A thin-film ceramic filled epoxy formulated for corrosion control and abrasion resistance. Resistance to organic acids, alkali and salts. Known for its forgiving application characteristics in adverse and varied conditions.

Features
- 100% solids, no VOCs
- Ceramic filled for extra abrasion resistance
- Long-term wear protection

Uses
- Tank linings
- Secondary Containment
- Valves and fittings

Color
Light Gray

Finish
Gloss

Primer
Self-priming

Dry Film Thickness (DFT)
8 - 12 mils per coat

Solids Content
100% ± 1% by volume

Maximum Dry Temperature Resistance
Continuous: 220°F (104°C)
Non-Continuous: 250°F (121°C)
Discoloration and loss of gloss occurs above 200°F (93°C) but does not affect performance.

Under Insulation Resistance
Continuous: 175°F (79°C)

SUBSTRATES & SURFACE PREPARATION

All
Surfaces must be clean and dry. Remove all dirt, dust, oil and all other contaminant.

Steel
Immersion: SSPC-SP10 Near White with jagged profile of 2.5 - 3.5 mils.

Non-immersion: SSPC - SP6
1.5 - 3.0 mils SSPC - SP2 or SP3 are suitable cleaning methods for mild environments.

Concrete or Concrete Masonry Unit (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. Mortar joints should be cured a minimum of 15 days. Prime with RR&C Epoxy Concrete Primer.

Previously Painted Surfaces
Consult with Sherwin-Williams representative.

MIXING & THINNING

Ratio
3:1 ratio (A to B) by volume

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

Thinning
Spray: Up to 6.5 oz/gal (5%) w/Sherwin-Williams 54 reducer
Brush: Up to 16 oz/gal (12%) w/Sherwin-Williams 54 reducer
Roller: Up to 16 oz/gal (12%) w/Sherwin-Williams 54 reducer

Use of thinners other than those supplied or recommended by Sherwin-Williams may adversely affect product performance and void product warranty, whether expressed or implied.

Pot Life
8 hours 20 minutes at 41°F (5°C)
2 hours at 77°F (25°C)
50 minutes at 92°F (33°C)

Cleanup
Use MEK or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

Do not keep the blended coating in the original container unless immediate use is planned. Otherwise, exothermic heat created during the curing process will considerably shorten the pot life. Pour the coating into a rolling tray or large aluminum-basting pan. Try to keep the depth of the coating in the tray below 3/8-inch.

APPLICATION GUIDELINES

Spray Application
This is a 100% 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 and Graco.

Airless Spray Plural Component
Tip Size: 0.025 - 0.029 reversible type
Part A Fluid Line: 1/2-inch ID
Part B Fluid Line: 3/8-inch ID
Spray Line: 1/2-inch ID x 50 feet maximum
Whip: 1/4 - 3/8-inch ID
Whip Length: 20 feet maximum
Pump Size: 56:1 or greater
Static Mixer: 2 x 1/2-inch ID x 12-inch length behind mixing valve
Part A Resin: 130°F - 135°F (54°C - 57°C)
Part B Hardener: 90°F - 95°F (32°C - 35°C)

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Airless Spray Single Leg or Hot Pot

Pump Size: 56:1 or greater
Hose Length: 50 ft x 3/8-inch ID
Whip Length: 10 ft x 1/4-inch ID
Work Life, 4 gallons at 32°C (90°F):
- No Thinner: 25 minutes
- 3 - 5% Thinner: 35 - 40 minutes

Part A resin and Part B hardener should be heated individually to 75°F - 85°F (24°C - 29°C) before mixing so product will atomize properly in delivering paint to the substrate. Mixed product should be sprayed within 20 minutes after mixing.

Brush & Roller

This material may be applied with brush or roller. Be aware of working life when using brush or roller application.

Brush

Use a medium bristle brush

Roller

Use a short-nap synthetic roller cover with phenolic core

CURE SCHEDULE & RECOAT WINDOW

TEMPERATURE	MINIMUM RECOAT	MAXIMUM RECOAT	RETURN TO SERVICE (HYDROCARBON IMMERSION)
50°F (10°C)	8 hours	14 days	7 days
77°F (25°C)	4 hours	14 days	72 hours
140°F (60°C)	1 hour	Not recommended	4 hours

Return-to-service will vary with chemical exposure. Consult with your Sherwin-Williams representative for guidance.

PACKAGING, ESTIMATING & HANDLING

ITEM#	PRODUCT	PACKAGING
MRF-1GL-SW	RR&C Metal Repair Fluid, Kit, Light Gray	1 gal (3.5 L) Kit
	-Part A Resin	7.3 lbs (3.3 kg)
	-Part B Hardener	2.2 lbs (0.98 kg)

Theoretical Coverage

1604 square feet per gallon at 1 mil
106 square feet per gallon at 15 mils
64 square feet per gallon at 25 mils
Allow for loss in mixing and application.

Storage & Shelf Life

Store indoors. This product is not affected by excursions below these published storage temperatures, down to 10°F (-12°C), for a duration of no more than 14 days. Always inspect the product prior to use to make sure it is smooth and homogeneous when properly mixed.

SAFETY

Safety

Read and follow all caution statements on this product data sheet and on the SDS for this product. 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. User should test and monitor exposure levels to insure all personnel are below guidelines.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	SYSTEM	VALUE
Dry adhesion ASTM D4541	Blasted steel 1 coat	>2,500 psi
Dry adhesion ASTM D4541	Scuffed FBE 1 coat	>2,000 psi
Wet adhesion ASTM D4541 5 days 158°F (70°C) water	Blasted steel 1 coat	>2,500 psi
Abrasion ASTM D4060 1000 cycles, CS17 wheel 1000 gm load	Blasted steel 1 coat	80 mg loss 770 cycles per mil
Compressive strength ASTM C109	Blasted steel 1 coat	10,000 - 13,000 psi
Hardness ASTM D2240	Blasted steel 1 coat	83 - 90 Shore D

Meets the performance requirements of AWWA C210

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