



AMP-UP™ 100 Low VOC Self-Healing Hybrid Epoxy Primer

AMP-UP™ 100 Low VOC Self-Healing Hybrid Epoxy Primer is a single component, environmentally friendly, self-healing water-based epoxy primer designed for a wide range of applications. AMP-UP™ 100 protects a variety of substrates such as steel, aluminum and concrete in mild to severe industrial environments. AMP-UP™ 100 utilizes patented self-healing technology that helps maintain adhesion and extends coating life on surfaces subject to damage. In the event of damage, this self-healing waterbased hybrid epoxy primer is designed to maintain adhesion and mitigate corrosion creep by releasing a healing agent that restores protection to the coated surface. AMP-UP™ 100 can be used for interior or exterior applications, with or without a top-coat. For best performance a compatible AMI coating, such as AMP-UP™ ACRYLIC, AMP-UP™ URETHANE or AMP-UP™ PROSHIELD, is recommended. Without a topcoat, AMP-UP™ 100 may fade and discolor with age. These changes in color will not adversely affect coating integrity and performance.

Features

- ✓ Low VOC (< 50 g/L)
- ✓ Maintains adhesion after damage
- ✓ One-component epoxy hybrid coating
- ✓ Patented self-healing technology
- ✓ Extended coating life

Products

Red Primer 1-Gallon 5-Gallon

Gray Primer 1-Gallon 5-Gallon

Compatible Topcoats

This primer is compatible with a wide range of topcoats. Excellent performance will be obtained when top-coated with any of the AMP-UP™ ACRYLIC, AMP-UP™ PROSHIELD or AMP-UP™ URETHANE products.

Surface Preparation

All Surfaces: Remove dirt, dust, oil, salt, and any other chemical contaminants by washing the surface with a cleaner/degreaser and water. Mold and mildew areas must be cleaned with a chlorinated cleaner or bleach solution. Rinse thoroughly with fresh water and allow to fully dry. All surfaces must be dry at time of application.

Steel: Remove loose rust, mill scale and coatings in accordance with hand tool (SSPC-SP-2) or power tool (SSPC-SP-3) cleaning. For optimum corrosion performance, abrasive blast to SSPC-SP-6 Commercial Grade is recommended.

Aluminium: Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning. If needed, roughen the surface of the aluminum in accordance with SSPC-SP-16 and solvent wipe immediately before coating application.

Previously Coated: Previously coated surfaces must be in good condition. Smooth, hard or glossy finishes should be sanded to create a surface profile. To ensure product compatibility, application on a test patch is recommended.

Galvanized Steel: Roughen the surface and remove loose debris or corrosion products using a wire brush or power tool. Remove all organic contaminants with a mild alkaline or a mild acidic solution. If necessary, rinse the surface using clean water and allow it to dry before coating application.

Concrete and Masonry: Remove weak or deteriorated concrete and masonry to obtain sound surface. Remove dirt, dust and other contamination from the surface by air blowing, brushing, scrubbing or other acceptable method. Avoid leaving cleaner residues on the surface of the concrete if used.

Equipment Recommendations

Brush: Use a good quality synthetic bristle brush.

Roller: Use a good quality synthetic nap roller cover.

Air-Atomized Spray:

METHOD	FLUID TIP	FLUID DELIVERY	ATOMIZING PRESSURE
PRESSURE	0.055 - 0.070	10-16 oz/min	25-60 psi
SIPHONE	0.055 - 0.070	-	25-60 psi
HVLP _(VAR)	0.043 - 0.070	8-10 oz/min	10 psi at tip

Air cap for highest pressure

Airless Spray:

FLUID PRESSURE	FLUID TIP	FILTER MESH
1800-3000 psi	0.017-0.021	100

Thinning

Brush/Roller: Thinning is normally not required. When necessary, thin with clean water.

Air Atomized Spray: Water as needed for desired application viscosity (up to 1 pint per gallon).

AIRLESS Spray: Water as needed for desired application viscosity up to 1 pt/gallon.

Spray: Immediately flush spray lines with water, followed by cleaner/degreaser.

Clean-up

Brush/Roller: Use soap and water immediately after use.

Spray: Immediately flush spray lines with water, followed by approved cleaner/degreaser.

Pencil Hardness

Method: ASTM D3363 **Result:** H (After 7 days)

Mandrel Bend for Flexibility

Method: ASTM D522 **Result:** >40%

Impact Resistane (Direct)

Method: ASTM D2794 **Result:** 100 inch-lbs

Taber Abrasion

Method: ASTM D4060, CS 10 wheels, 1000 gm load, 1000 cycles **Result:** 57 mg

Cross-Hatch Testt

Method: ASTM D3359 **Result:** 5B

Corrosion Performance

Method: ASTM B117 **Result:**

1000 HOURS B117 SALT FOG		
COATING SYSTEM	SCRIBE CREEP (MM)	
	TYPICAL SYSTEM	WITH AMP-UPTM 100 LOW VOC SELF HEALING PRIMER
1ct. Primer, 1ct. Acrylic on Cold Rolled Steel	7.3	2.3
2ct. Primer, 1ct. Acrylic on Cold Rolled Steel	6.3	1.9
2ct. Primer, 1ct. Acrylic on Rusted Steel	6.1	3.7
2ct. Primer, 1ct. Acrylic on Galvanized Steel	5.0	2.5
2ct. Primer, 1ct. Acrylic on Aluminum 2024-T3	6.3	1.7
2000 HOURS B117 SALT FOG		
1ct. Primer, 1ct. Acrylic on Cold Rolled Steel	9.1	3.1
2ct. Primer, 1ct. Acrylic on Blasted Steel (SSPC-SP6)	10.9	4.0

Physical Properties

APPLICATION CONDITIONS	TEMP RANGE	50 -100 °F (10 – 38 °C)
	REL HUMIDITY	Less than 85%
	SURFACE TEMP	5°F (3°C) above dew point
RESIN TYPE		Water-Based Epoxy Amine Adduct
PIGMENT TYPE		Metal Oxides (Varies with color)
SOLVENTS		Water
WEIGHT	PER GALLON	10.4 - 10.5 lbs.
	PER LITER	1.2 - 1.3 kg
SOLIDS	BY WEIGHT	52%
	BY VOLUME	40%
VOLATILE ORGANIC COMPOUNDS		47 g/L
RECOMMENDED DRY FILM THICKNESS(DFT) PER COAT		2.0 - 3.0 mils (51- 76 µm)
WET FILM TO ACHIEVE DFT		5.0 - 8.0 mils (127 - 203 µm)
COVERAGE AT RECOMMENDED DFT		200 - 320 sq. ft./gal. (4.9 – 7.9 m2/L)
DRY TIMES 70-80 °F (21-27°C) and 50% Relative Humidity	TACK-FREE	0.5 - 1 hour
	HANDLE	2 - 4 hours
	RECOAT	4 hours
	TOPCOAT	4 hours
DRY HEAT RESISTANCE		200°F (93°C)
SHELF LIFE		1 year (Below 40°C)
SAFETY INFORMATION		See SDS

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