



Universal Primers

100R0027 Red

100D0031 Gray

100W0038 White

PRODUCT DESCRIPTION

Universal Primers are fast drying, rust inhibitive primers designed to protect steel and iron substrates from corroding prior to erection. These primers are VOC and HAPS compliant and contain no heavy metals. Sumter Coatings' Universal Primers are formulated to accept topcoats, such as epoxies, polyurethanes, lacquers and acrylics, which may contain strong solvents.

Recommended Use: Universal Primers may be used to prime storage tanks, industrial plants, machinery and other steel that may be exposed to mild or moderate industrial environments. Universal Primers are suitable as a barrier coating over other primers or topcoats that may be subject to attack from strong solvents within subsequent topcoats.

Universal Primers meet or exceed the performance requirements of SSPC Paint No. 15, SSPC Paint No. 25, TT-P-636 and TT-P-664D.

PERFORMANCE PROPERTIES

System Tested:

Substrate: Steel

Surface Preparation: SSPC-SP6

1 ct. Universal Primer @ 2 mils dft

Adhesion:

Method: ASTM D4541 Type II

Result: 7-day cure: Passes 250 lbs/sq in

Pencil Hardness:

Method: ASTM D3363

Result: 7-day cure: 2B-B

Direct Impact Resistance:

Method: ASTM G14

Result: 24-hour cure: Passes 90 lbs/sq in

7-day cure: Passes 30 lbs/sq in

Flexibility:

Method: ASTM D522

Result: 24-hour cure: Passes 1/8" bend

7-day cure: Passes 1/4" bend

Humidity Resistance:

Method: ASTM D4585

Result: Passes 120 hours @ 100°F

Dry Heat Resistance:

Method: ASTM D2485 Method A

Result: Passes 200°F

Salt Spray Resistance:

Method: ASTM B117

Result: Passes 500 hours

Thermal Shock:

Method: ASTM D2246 – 5 cycles

Result: Passes

TECHNICAL INFORMATION

Gloss: Flat 0 – 5 units @ 60° Maximum

Use: Protective / Decorative

Color: Red, Gray and White

Recommended Film Thickness: 2.0 – 4.0 Mils Dry
4.0 – 8.0 Mils Wet

Spread Rate: 404 – 202 sq ft/gal
@ Recommended Dry Film – No Loss

Dry Time: @ 4.0 Mils Wet
@ 77°F (25°C) & 50% Relative Humidity

To Touch: 15 minutes

Tack Free: 30 minutes

To Handle: 60 minutes

To Topcoat: 30 minutes alkyd topcoats
2 hours epoxy or urethane

Drying times are dependent upon film thickness, temperature and humidity.

Flash Point: 45°F (7°C) SETAFLASH

Viscosity: 70 – 75 KU @ 77°F (25°C)

VOC:	100R0027	3.18 lbs/gal (382 g/l)
	100D0031	3.14 lbs/gal (408 g/l)
	100W0038	3.18 lbs/gal (382 g/l)

#HAPS / Gal Solids:	100R0027	0.13
	100D0031	0.13
	100W0038	0.13

Solids By Volume:	100R0027	49.81 ± 2%
	100D0031	50.56 ± 2%
	100W0038	50.37 ± 2%

Solids By Weight:	100R0027	71.82 ± 2%
	100D0031	72.99 ± 2%
	100W0038	73.83 ± 2%

Weight Per Gallon:	100R0027	11.28 lbs
	100D0031	11.60 lbs
	100W0038	12.12 lbs

Shelf Life: Two years unopened from date of manufacture.

Reducer: 560X3504 (Xylene) or 560X3611 (Butyl Acetate) to maintain reported HAPS.

Clean Up: 560X3504 (Xylene) or 560X3611 (Butyl Acetate) to maintain reported HAPS.

APPLICATION INFORMATION

SURFACE PREPARATION:

Surface of substrate should be dry, clean, and in sound, paint worthy condition. The surface must be free of dirt, grease, oil, salts, loose rust, loose mill scale, and any other foreign materials or contaminants.

Steel and Iron:

The minimum surface preparation for steel and iron is Hand Tool Cleaning per SSPC-SP2. Prior to this procedure, the surface should be solvent cleaned per SSPC-SP1. For better performance, begin with SSPC-SP1 followed by SSPC-SP6, Commercial Blast Cleaning. Bare metal should be primed as soon after surface preparation as possible, or before flash rusting occurs.

APPLICATION CONDITIONS:

Temperature:

Temperature should not exceed 120°F or go below 40°F during application. This applies to air, surface of substrate and the primer itself. The temperature should be at least 5° F above the dew point.

Relative Humidity:

Dry times may be adversely affected as the relative humidity increases. Caution should be taken when painting in very humid conditions.

MIXING & THINNING INSTRUCTIONS:

Before use, mix paint thoroughly by boxing and stirring. Mechanical agitation is preferred. Be sure all settlement, if any, is well incorporated. Thinning of this product is not normally required; however, if it is deemed necessary, use 560X3504 (Xylene). To maintain reported HAPS use 560X3611 (Butyl Acetate).

Note: The addition of thinner reduces viscosity, which, in turn, affects spread rate and application characteristics. If thinner is used, make sure it is well incorporated into the paint prior to application.

FIREPROOFING:

Universal Primers have been tested for compatibility and adhesion with certain cementitious fireproofing materials and were found to exhibit excellent performance. They have also been tested and approved under a limited number of intumescent fireproofings with satisfactory adhesion and compatibility. Contact Sumter Coatings or your Sumter Coatings representative for specific information.

WELDABILITY:

Independent lab tests have found no evidence that **Universal Primers** adversely affected the welding process. These primers may be welded through to yield sound welds.

Prices may be obtained from your Sumter Coatings Sales Representative, or by calling Sumter Coatings Customer Service at 1-888-471-3400.

APPLICATION EQUIPMENT:

The following are general recommendations. Pressure and tip size may be varied due to temperature changes and for proper spray characteristics.

Thinner: Typically not recommended. If deemed necessary, use 560X3504 (Xylene). Use 560X3611 (Butyl Acetate) to maintain reported HAPS.

See Mixing and Thinning Instructions for further information.

Airless Spray:

Pump Ratio: 30:1
Hose: 1/4" or 3/8"
Tip Size: .015 – .019
Pressure: 1800 – 3000 psi
Filter: 60 Mesh

Air-assisted Airless

Pump Ratio: 15:1 – 30:1
Fluid Pressure: 800 – 1200 psi
Air Pressure: 5 – 20 psi
Fluid Hose: 1/4" – 3/8"
Tip Size: .015 – .019

Conventional Spray:

Gun: Graco AirPro or equal
Fluid Nozzle: 1.4 mm
Air Cap: 289773
Atomization Pressure: 40 – 50 psi
Fluid Pressure: 15 – 20 psi

Brush: Natural Bristle – for small areas only.

HINTS FOR BETTER PERFORMANCE:

A clean substrate is necessary for optimal performance of the primer, as direct contact of primer and steel surface is required for rust inhibition and good adhesion.

All welds, sharp edges, angles, and other areas prone to early rusting due to insufficient coverage should be stripe-coated prior to full application in order to help prevent premature failure in these areas.

Over-thinning of the coating material can result in an insufficient film-build, poor adhesion and overall poor appearance.

During the spray application, use a 50% overlap with each pass of the gun. This will help ensure complete and thorough coverage, avoiding low build areas, which may corrode prematurely due to insufficient primer.

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The technical data furnished are true and accurate to the best of our knowledge at the date of issuance. It is subject to change without prior notice. It is suggested the user verify with Sumter Coatings, Inc. prior to specifying or ordering. Test results are believed to be reliable, however, no guarantee of accuracy is given or implied. We guarantee all products to conform to Sumter Coatings, Inc.'s quality control standards. Liability, if any, is limited to replacement of product. No other warranty or guarantee of any kind, expressed or implied, is made by Sumter Coatings, Inc., including fitness for a particular purpose.