



Protective & Marine Coatings

STEEL SPEC™ UNIVERSAL PRIMER

B50RV6227
B50AV8431
B50WV8430
B50BV8430
B50AZ19

RED
GRAY
WHITE
BLACK
DARK GRAY

Revised: February 13, 2023

PRODUCT INFORMATION

2.47

PRODUCT DESCRIPTION

STEEL SPEC UNIVERSAL PRIMER is a phenolic modified, universal, heavy duty, weldable, rust inhibitive primer that combines many features of highly specialized primers into one product. It can be topcoated with epoxy, vinyl, chlorinated rubber, alkyd, acrylic, and urethane coatings as well as conventional oil and oleoresinous paints. This enables structural steel to be shop coated with this product and then top coated on the job with specialized coatings for chemical resistance needed in a specific area. Conforms to CISC/CPMA Standards 1-73a and 2-75.

PRODUCT CHARACTERISTICS

Finish:	Flat
Color:	Red, Gray, White, Black, and Dark Gray
Volume Solids:	63% ± 2%, may vary by color
Weight Solids:	81% ± 2%, may vary by color
VOC:	<340 g/L; 2.8 lb/gal

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils:	3.0	6.0
Dry mils:	2.0	4.0
~Coverage sq ft/gal:	252	505
Theoretical coverage sq ft/gal @ 1 mil dft	1010	

Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 4.0 mils wet @ 50% RH:

	@ 40°F	@ 77°F	@ 120°F
To touch:	40 minutes	15 minutes	10 minutes
Tack-Free:	2.5 hours	1 hour	20 minutes
Dry-Hard:	3.5 hours	1.5 hours	45 minutes
To handle:	4.5 hours	2 hours	2 hours
To recoat:			
alkyds:	7.5 hours	2 hours	2 hours
urethane:	24 hours	24 hours	6 hours
acrylic:	48 hours	24 hours	6 hours
To cure:	5 days	2 days	1 day

Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	36 months, unopened Store indoors at 40°F to 100°F.
Flash Point:	90°F, Red & White 103°F, Gray
Reducer/Clean Up:	Xylene

RECOMMENDED USES

A non-lifting type primer which can be used as a barrier coat between previously painted surfaces and new coatings which contain strong solvents that will lift the old paint.

Steel Spec Universal Primer is not recommended for continuous immersion service. This primer does not contain lead or chromates.

This product is solely for use in a controlled shop environment. It is not to be field applied in residential or commercial structures.

According to AISC, shop coat primers are intended for protection for only a short period of exposure in ordinary atmospheric conditions, and is considered a temporary and provisional coating.

Not recommended for immersion service or exposure to acids or alkalis.

When properly applied and cured, meets the requirements of USDA FSIS and the CFIA for incidental, indirect food contact of construction materials.

Acceptable for use in Canadian Food Processing facilities, categories: D1, D3 (Confirm acceptance of specific part numbers/ rexes with your SW Sales Representative).

Complies with MPI #79

Provides performance comparable to products formulated to SSPC-Paint 15.

PERFORMANCE CHARACTERISTICS

Weld Test: Passed AWS D1.1

Substrate*: Steel

Surface Preparation*: SSPC-SP10

System Tested*:

- 1 ct. Steel Spec Universal Primer @ 2.0 mils dft
- 1 ct. Steel Spec FD Alkyd @ 5.0 mils dft

*unless otherwise noted below

Test Name	Test Method	Results
Adhesion¹	ASTM D4541	570 psi
Corrosion Weathering²	ASTM D5894, 15 cycles	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting; Rating 9 per ASTM D1654 for corrosion
Direct Impact Resistance³	ASTM D2794	32 in. lbs
Salt Fog Resistance	ASTM B117, 500 hours	Rating 9 per ASTM D610 for rusting; Rating 8 per ASTM D1654 for corrosion

¹ Primer @ 2.9 mils dft, Topcoat @ 4.6 mils dft

² Topcoat @ 4.2 mils dft

³ Primer @ 2.4 mils dft, Topcoat @ 3.8 mils dft

Steel Spec Universal Primer has been tested with numerous cementitious/intumescent fireproofing materials with satisfactory adhesion and compatibility results. When using Steel Spec Universal Primer under fireproofing products, defer to the primer surface preparation requirements in the product data sheet of the fireproofing product and not necessarily the primer requirements. Contact your Sherwin Williams representative for specific information and product recommendations.



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APPLICATION METHODS

May be applied by airless or conventional spray. Brush for touch up only.

Conventional Spray:

DeVilbiss MBC-510 Gun with "E" tip and 704 air cap, 3/8 inch ID material hose, oil and moisture separator recommended.

Airless Spray:

.015 - .017 inch orifice tip with a 30:1 pump ratio or equivalent. 1/4" ID supply line. Adjust pressure as needed. Reduction: as needed up to 5% by volume.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Minimum Surface Preparation (Steel): SSPC SP2 Hand Tool Clean or SSPC-SP3 Power Tool Clean. In severely corrosive environment, SSPC-SP6, Commercial Blast Cleaning is required.

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 40°F minimum, 120°F maximum (air, surface, and material)
At least 5°F above the dew point

Relative Humidity: 85% maximum

ORDERING INFORMATION

Packaging: 5 gallon pails and 53 gallon drums

Weight per gallon: 13.55 ± 0.2 lb, may vary by color

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Xylene. Clean tools immediately after use with Xylene. Follow manufacturer's safety recommendations when using any solvent.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.