Protective & Marine Coatings

HI-SOLIDS ALKYD METAL PRIMER

B50NZ2 Reddish Brown
B50WZ3 Off White

Revised September 13, 2016

PRODUCT INFORMATION

2.10

PRODUCT DESCRIPTION

HI-SOLIDS ALKYD METAL PRIMER is a fast drying, high solids, low VOC, rust inhibitive, alkyd primer for steel surfaces. It is free of heavy metal hazards. It is easy to apply by spray and has good resistance to general atmospheric weathering. It can be topcoated with alkyd and latex coatings.

- Fast drying maintenance primer
- Low VOC formulation below 340 g/L; 2.8 lb/gal.
- Heavy metal free pigmentation
- Rust inhibitive
- Excellent application characteristics

PRODUCT CHARACTERISTICS

Finish:	Low Sheen
Color:	Reddish Brown, Off White
Volume Solids:	65% ± 2%
Weight Solids:	82% ± 2%
VOC (EPA Method 24):	Unreduced: <320 g/L; 2.65 lb/gal Reduced 5%: <340 g/L; 2.80 lb/gal

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**5.0** (125)	**8.0** (200)
Dry mils (microns)	**3.0** (75)	**5.0** (125)
~Coverage sq ft/gal (m^2/L)	**205** (5.0)	**342** (8.4)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**1040** (25.5)	

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

Drying Schedule @ 5.0 mils wet (125 microns):

	@ 40°F/4.5°C	@ 77°F/25°C *50% RH*	@ 110°F/43°C
To touch:	1 hour	25 minutes	15 minutes
To handle:	2 hours	45 minutes	30 minutes
To recoat:			
with alkyds	4 hours	1 hour	1 hour
To stack:	4 hours	1.5 hours	1.5 hours
To cure:	7 days	5 days	3 days

Note: For maximum adhesion, acrylic topcoats require 48 - 72 hours drying of primer.
Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	36 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	74°F (24°C), PMCC
Reducer/Clean Up:	Xylene, R2K4

RECOMMENDED USES

For industrial and commercial application to steel, to protect against atmospheric corrosion.

- Interior and exterior use
- Use as a field or shop primer
- Bridges
- Marine vessels
- Towers
- Structural steel
- Suitable for use in USDA inspected facilities
- Conforms to AWWA D102 OCS #1

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, alkalis, or strong solvents.

PERFORMANCE CHARACTERISTICS

- High build to protect abrasive blasted steel
- Good corrosion and rust undercutting protection
- Abrasion resistant
- Primer for use under a variety of acrylic and alkyd topcoats
- Field or shop primer

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel, alkyd topcoat:			
1 ct.	Hi-Solids Alkyd Metal Primer	3.0-5.0	(75-125)
1-2 cts.	Industrial Enamel HS	2.0-4.0	(50-100)
or	Steel-Spec FD Alkyd	3.0-5.0	(75-125)
Steel, aluminum topcoat:			
1 ct.	Hi-Solids Alkyd Metal Primer	3.0-5.0	(75-125)
1-2 cts.	Silver-Brite Aluminum	1.0-1.5	(25-40)
Steel, acrylic topcoat:			
1 ct.	Hi-Solids Alkyd Metal Primer	3.0-5.0	(75-125)
2 cts.	Pro Industrial DTM Acrylic Coating	2.5-4.0	(63-100)
Steel, silicone alkyd topcoat:			
1 ct.	Hi-Solids Alkyd Metal Primer	3.0-5.0	(75-125)
1-2 cts.	Steel-Master 9500	2.0-3.0	(50-75)
Steel; urethane alkyd:			
1 ct.	Hi-Solids Alkyd Metal Primer	3.0-5.0	(75-125)
1-2 cts.	Industrial Urethane Alkyd Enamel	2.0-4.0	(50-100)

The systems listed above are representative of the product's use, other systems may be appropriate.

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.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:
Iron & Steel: SSPC-SP2

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	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum
(air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 13.9 ± 0.2 lb/gl 1.67 Kg/L

SAFETY PRECAUTIONS

Refer to the MSDS 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.

DISCLAIMER

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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.

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Surface Preparations

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.

Iron & Steel
Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

Previously Painted Surfaces
If in sound condition, clean the surface of all foreign material. Smooth, hard, or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP5	1
Near White Metal		Sa 2.5	Sa 2.5	SP10	2
Commercial Blast		Sa 2	Sa 2	SP6	3
Brush-Off Blast		Sa 1	Sa 1	SP7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

Application Conditions

Temperature:	40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material) At least 5°F (2.8°C) above dew point
Relative humidity:	85% maximum

Application Equipment

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean Up .....Xylene, R2K4

Airless Spray
Pressure.....1800 - 3000 psi
Hose.....1/4" ID
Tip .....015" - .019"
Filter .....60 mesh
Reduction.....Not recommended

Conventional Spray
Gun .....Binks 95
Fluid Nozzle 63C
Air Nozzle.....63PB
Atomization Pressure.....50 psi
Fluid Pressure.....15-20 psi
Reduction.....As needed up to 5% by volume

Brush (for small areas only)
Brush.....Natural Bristle
Reduction.....Not recommended

Roller .....Not recommended

If specific application equipment is not listed above, equivalent equipment may be substituted.

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Application Procedures

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**5.0** (125)	**8.0** (200)
Dry mils (microns)	**3.0** (75)	**5.0** (125)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

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To cure:	7 days	5 days	3 days

Note: For maximum adhesion, acrylic topcoats require 48 - 72 hours drying of primer.
Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

Clean Up Instructions

Clean spills and spatters immediately with Xylene, R2K4. Clean tools immediately after use with Xylene, R2K4. Follow manufacturer's safety recommendations when using any solvent.

Disclaimer

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Performance Tips

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Xylene, R2K4.

Intimate contact of the steel surface and primer is necessary for adhesion and rust inhibition.

Primer coats should not be left untopcoated in excess of six months.

Brush application should be confined to small areas and touch-up.

Refer to Product Information sheet for additional performance characteristics and properties.

Safety Precautions

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