

# Kem Bond® HS

## Universal Metal Primer

B50NZ0003 Red Oxide, B50WZ0004 Off White, B50AZ0008 Gray



**SHERWIN  
WILLIAMS®**

### CHARACTERISTICS

**KEM BOND HS** is a fast drying, higher solids, rust inhibitive, universal, phenolic alkyd metal primer. Kem Bond HS can be topcoated with alkyd, acrylic, and high performance coatings. Also suitable as a "barrier" coat over conventional coatings which would normally be attacked by strong solvents in high performance coatings.

**For use on properly prepared:** Steel

#### Features:

- High film build to protect sand blasted steel
- Good corrosion and rust protection
- Universal, can be topcoated with epoxies and urethanes
- Exterior-interior metal primer
- Suitable for use in USDA inspected facilities

#### Recommended for use in:

- Marine application
- Maintenance primer
- Structural steel
- Machinery
- Steel pipe
- Hand rail
- Tanks
- Bar joists

**Color:** Red Oxide, Off White, Gray

#### Recommended Spreading Rate per coat:

(B50NZ0003 varies by base) as mixed

Wet mils: 3.0-8.0  
Dry mils: 1.8-4.8  
Coverage sq. ft. per gallon: 200-534  
**Theoretical coverage:** sq. ft. 962  
per gallon @ 1 mil dry

Approximate spreading rates are calculated on volume solids and do not include any application loss. Note: 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 :                | 1 hour   | 30 min.  | 10 min. |
| Tack handle:              | 3 hours  | 1 hour   | 15 min. |
| To recoat:                | 6 hours  | 2 hours  | 1 hour  |
| with itself and alkyds    |          |          |         |
| To recoat:*               | 24 hours | 24 hours | 6 hours |
| To recoat:                | 48 hours | 24 hours | 6 hours |
| with acrylic latex paints |          |          |         |
| Cure time                 | 5 days   | 2 days   | 1 day   |

\* Recoat with hot solvent urethane or epoxies or high performance coatings.

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

**Tinting:** Do Not Tint

**Finish:** Flat

#### Red Oxide B50NZ0003

(may vary by color)

#### V.O.C. (less exempt solvents): As mixed

336 grams per litre; 2.81 lbs. per gallon  
As per 40 CFR 59.406

**Volume Solids:** 60 ± 2%  
**Weight Solids:** 79 ± 2%  
**Weight per Gallon:** 13.17 lb  
**Flash Point:** 71°F TCC  
**Shelf Life:** 36 months, unopened

### COMPLIANCE

As of 07/12/2021, Complies with:

|                                      |     |
|--------------------------------------|-----|
| <b>OTC</b>                           | Yes |
| <b>OTC Phase II</b>                  | No  |
| <b>S.C.A.Q.M.D.</b>                  | No  |
| <b>CARB</b>                          | No  |
| <b>CARB SCM 2007</b>                 | No  |
| <b>CARB SCM 2020</b>                 | No  |
| <b>Canada</b>                        | Yes |
| <b>LEED® v4 &amp; v4.1 Emissions</b> | No  |
| <b>LEED® v4 &amp; v4.1 V.O.C.</b>    | No  |
| <b>EPD-NSF® Certified</b>            | No  |
| <b>MIR-Manufacturer Inventory</b>    | No  |
| <b>MPI®</b>                          | Yes |

### APPLICATION

**Temperature:**  
minimum 40°F / 4.4°C  
maximum 120°F / 49°C

air, surface, and material

At least 5°F above dew point

**Relative humidity:** 85% maximum

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 compatible with the existing environmental and application conditions.

**Reducer:** No reduction in restricted areas  
Xylene,R2K4

**Airless Spray:**  
Pressure 1800 p.s.i.  
Hose 1/4-3/8 inch I.D.  
Tip .017-.019 inch  
Reduction As needed up to 3%  
by volume

**Conventional Spray:** Not recommended  
**Brush** Natural Bristle

**Roller Cover** 1/4-3/8 inch woven with solvent resistant core

If specific application equipment is listed above, equivalent equipment may be substituted.

Apply paint at the recommended film thickness and spreading rate as indicated on front page. Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance. 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, over thinning, climatic conditions, and excessive film build.

Mix paint thoroughly to a uniform consistency with slow speed power agitation prior to use. Stripe coat 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.

Not recommended for immersion service or exposure to acids, alkalis, or strong solvents. Intimate contact with the steel surface and primer is necessary for adequate rust inhibition and adhesion.

According to American Institute of Steel Construction (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.

### SPECIFICATIONS

**Steel:**  
1 coat Kem Bond HS  
2 coats Topcoat

#### Acceptable Topcoats:

Acrolon 218 HS Polyurethane  
Hi-Solids Polyurethane  
Industrial Enamel  
Macropoxy 646 Epoxy  
Macropoxy HS Epoxy  
Metalatex Semi-Gloss Enamel  
Pro Industrial Acrylic  
Pro Industrial Waterbased Epoxy  
Pro Industrial Waterbased Alkyd-Urethane  
Pro Industrial Multi-Surface Acrylic  
Pro Industrial Pre-Catalyzed Epoxy & Urethane  
Pro Industrial Urethane Alkyd Enamel  
Pro Industrial Waterbased Acrolon 100  
Sher-Cryl  
Silver-Brite Aluminum  
Steel Master 9500  
Tile-Clad HS Epoxy

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

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### SURFACE PREPARATION

**WARNING!** Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Glossy surfaces should be sanded dull. Stains from water, smoke, ink, pencil, grease, etc. should be sealed with the appropriate primer-sealer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

**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). 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, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest surface for adhesion. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

Other substrates may or may not be appropriate. If a specific substrate is not listed above, consult your Sherwin-Williams representative for more information.

### SURFACE PREPARATION

**Mildew** - Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised. Mildew may be removed before painting by washing with a solution of 1 part liquid bleach and 3 parts water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach-water solution.

### PERFORMANCE

Off White B50WZ0004

**System Tested:** (unless otherwise indicated)

**Substrate:** Steel

**Surface Preparation:** SSPC-SP6-NACE 3

**Primer:** 1 coat Kem Bond HS @ 4.5-5 Mils W.F.T.

**Adhesion:**

Method: ASTM D3359

Result: 4B

**Corrosion Resistance:**

Method: ASTM D5894, 1008

Result: Pass

**Dry Heat Resistance**

Method: ASTM D2485

Result: 200°F

**Flexibility:**

Method: ASTM D522, 1/4 inch mandrel

Result: Pass

**Fineness of grind<sup>1</sup>:**

Method: Hegman

Result: 4 Hegman minimum

**Sag Test<sup>1</sup>:**

Method: ASTM D4400

Result: 12 mils minimum

**Viscosity<sup>1</sup>:**

Method: Krebs Units

Result: 95-105 KU

**Water Resistance:**

Result: Pass

<sup>1</sup> Standard test based on Certificate of Analysis

### SAFETY PRECAUTIONS

Before using, carefully read **CAUTIONS** on label. Refer to the Safety Data Sheets (SDSs) before use.

#### **FOR PROFESSIONAL USE ONLY.**

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

### CLEANUP INFORMATION

Clean spills, splatters & tools with compliant cleanup solvent. After cleaning, flush spray equipment with compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.

**DANGER:** Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

|      |            |           |        |
|------|------------|-----------|--------|
| HOTW | 07/12/2021 | B50NZ0003 | 36 321 |
| HOTW | 07/12/2021 | B50WZ0004 | 32 310 |
| HOTW | 07/12/2021 | B50AZ0008 | 20 314 |
| FRC  |            |           |        |