



W-1650 Bonding Primer  
Water-Based  
Field-applied Primer System  
**PRODUCT #: W-1650**

## W-1650 BONDING PRIMER

### PRODUCT DESCRIPTION:

W-1650 Bonding Primer is high performance coating ideal for exterior use over steel and factory coated surfaces such as Kynar® 500 and silicone polyester. The product is engineered to have excellent surface adhesion and intercoat adhesion to APV's topcoat systems. W-1650 is water-based in composition and contains low VOC content. It also provides excellent early water resistance and does not flash rust. It is easy to apply via conventional spray equipment, brush or roller.



### PHYSICAL PROPERTIES:

Type:	Water-Based
Color:	Gray, other colors upon request
Mix:	One Component
Viscosity:	54 Seconds, #3 Zahn Cup
Weight per Gallon (ASTM D 1475-90):	8.4 - 9 lbs/gal (1 - 1.08 g/ml)
Gloss @ 60°	< 15
pH:	8.5 - 9.5
Flash Point:	212 °F (100°C)
Solids:	37.8 % by weight 30.9 % by volume
VOC:	21 g/l
Film thickness:	3 mils (wet) 1 mil (dry)
Coverage:	400 - 450 sq ft/gal
Dry to Touch:	15 - 30 minutes
Recommended Recoat Window:	Min. 24 hours Max. 7 Days
Fully Cured:	7 Days
Application Temperature:	55°F - 85°F
Humidity:	5°F ABOVE DEW POINT
Shelf Life:	12 Months Unopened
Freeze Caution:	Keep from freezing

### SUBSTRATES:

W-1650 Bonding Primer is recommended for Steel and coated surfaces such as Kynar® 500 and silicone polyester. Other substrates are acceptable, contact APV Engineered Coatings' Technical Department for approval and guidelines on application.

### TINTED COLORS:

W-1650 Bonding Primer can be tinted for hiding purposes under special request. Colors are custom matched to order.

### REDUCTION:

Use as supplied, in some cases add water to reduce.

### PACKAGING:

W-1650 Bonding Primer is ready-to-use as supplied. Packaging sizes include: 1 gallon cans, 5 gallon pails and 55 gallon drums.

### FEATURES:

Water-Based

Very Low VOC

Excellent Adhesion

Can be Applied to New and Aged Kynar® 500 Coated Surfaces

Resistant to Flash Rust

Provides Early Water Resistance

Easy to Clean or Flush with Water

Applies Easily with Conventional Spray Equipment, Roller or Brush

Manufactured in the USA

## SUBSTRATE PREPARATION:

Although APV's coating systems have been designed to apply over a wide variety of surface types, some substrates require additional preparation. Always consult your APV technical representative regarding each project. In all cases, the substrate must be properly prepared as defined in the instructions below and tested using the ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape Test prior to coating the surface. Follow the guidelines on surface preparation and application thoroughly by referencing the **Field Coatings Guide**. Inadequate surface preparation and application can lead to coating failure and/or under-performance.

## APPLICATION:

### TEMPERATURE AND ENVIRONMENTAL FACTORS

Ambient air temperature is pertinent to coating performance and cure. Be sure to check that the air, surface, and material are between 55°-85° F and at least 5° F above the dew point. Avoid application if precipitation is expected within 24 hours and/or if air or surface temperature is expected to drop below 35° F within two days. Use caution when applying primer in direct sunlight as the flow, leveling and application characteristics will be adversely affected.

**Wind Velocity** | High wind velocity can severely impair spray application which can result in loss of materials, low film build, excessive dry spray or overspray. It is recommended to delay work until wind conditions are below 15 m.p.h.

**Dust and Contamination** | Work areas should be protected from conditions where dust and contamination are possible during the application and curing process. Dust and contaminants that settle on fresh applied coatings can impair the integrity of the coating leading to a shorter coating life and reduced performance. Please ensure your work area is free from dust and contaminants. If any previous coatings accumulate dust or contaminants, remove those before adding succeeding coats.

**Mixing and Thinning** | W-1650 Primer should be mixed thoroughly before use with an air mixer for 10-15 minutes. No dilution is necessary for most applications. However, all products can be reduced if needed for application. Additional products can be used to slow dry time. Please reference the reduction and viscosity information in Page 1 and always consult your APV representative.

**Ventilation** | Always use adequate ventilation and proper NIOSH approved respirator when applying NeverFade® topcoats and associated primer systems. Avoid breathing mist or sanding dust created by the application or surface preparation.

### FILM THICKNESS AND SPREADING RATE

Theoretical spreading rates as defined in the Technical Data Sheet can be used as a guide for determining film thickness. However, to validate proper film thickness, wet thickness readings should be taken at random locations immediately after application. A Nordson Wet Film Gauge or similar instrument should be used for this purpose.

Dry film thickness should be measured to validate proper thickness and coverage. Consult SSPC-PA2, Sections IV, Paint Thickness Measurement. Readings should be taken in accordance with the specification's standards mentioned above.

Applying the appropriate film thickness is important to the performance characteristics of the coating. Be careful not to apply too heavy of a coat. Excessive paint on the surface may result in runs and sags, producing an unsightly appearance, as well as weak spots in the film. A heavy coat weight may also change the drying properties causing wrinkling or cracking, and adversely affect intercoat adhesion. Applying too thin of a coat can impact the service life of the coating system and could mean discontinuity in coverage.

Proper film thickness, as referenced in Page 1, is critical and will need to be recorded for warranty compliance.

### BRUSH, ROLL AND SPRAY APPLICATION

W-1650 Primer can be applied with a brush, roller, or spray equipment. When using a spray application, it is advisable to back-roll surfaces to assure proper wetting of the substrate.

**Brush** | Nylon/Polyester Brush

**Roller** | 1/4"-3/4" nap cover; recommended roller type: Wooster® brand Pro Doo-Z or Microplush

**Spray** | Conventional, HVLP, Airless, & Air Assisted Airless | Consult an APV Equipment Specialist for recommendations on spray tips, caps, nozzles, fluid, and air pressures at [info@apvcoatings.com](mailto:info@apvcoatings.com).

## CLEANUP INFORMATION:

Always observe good professional hygiene practices and wash hands thoroughly after using our products. Clean hands immediately after use with soap and water. Use water to thoroughly clean application equipment. This will keep the primer from curing onto the surfaces. Any cured or dried coating left on the equipment will have to be removed with standard grade paint thinner. After cleaning, flush spray equipment with water or a water/solvent blend.

**CAUTIONS.** It is necessary for the integrity of the job that contractors ensure all personnel are properly protected from hazards when coating, or blast cleaning. There are numerous OSHA standards that cite how, where, and when workers need to be protected. You should consult OSHA, local, and equipment officials before starting the job to ensure your complete compliance with the law to avoid any liability issues. Product labels, Product Data Sheets, and Safety Data Sheets should always be consulted prior to any coating operations, and safety and health details should be addressed prior to implementing these operations.

Always dispose of dry, empty containers in compliance with local or state regulatory codes. First Aid: In case of eye contact, flush with water for 15 minutes. In case of skin contact, wash with soapy and water. If you experience difficulty breathing, seek a fresh source of air. In all cases, if you continue to experience discomfort, seek medical attention immediately. All products are for professional use only. Do not take internally. Keep out of reach of children. **Refer to the Material Safety Data Sheet for safety instructions.**

**WARNING!** Removal of old paint may generate fumes and dust that contain lead. This may be a step in the surface preparation process outlined previously. Lead can cause serious health issues. For more information regarding the proper protective equipment, containment, and cleanup for the removal of lead based paints contact the **National Lead Information Center at 1.800.424.LEAD** or contact your local health authority.



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NOTE: The information and data given herein are based upon tests and reports considered reliable and are believed to be accurate. However, due to varied application and handling methods, no guarantee of duplicate performance, expressed or implied, is made.

\*NeverFade® uses a specialized pigment system. Some colors may not incorporate this pigment system which, therefore, will not be covered under the warranty. APV will notify all customers if the chosen color falls outside of this system.

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