



400W ES White Bonder and Primer/Sealer

[Meets 100 g/l VOC Rule Limit]

Applications:

Aluminum
Steel*
Iron*
Non-Ferrous Metals
 Chrome, Tin, Copper
 Brass, etc.
Tile
Porcelain
Glazed Block
Formica
 Cabinets, Paneling
 Doors, Trim
PVC Shutters
PVC Clad Windows, etc.
Fiberglass
 ie. Garage Doors
Glass
Old Glossy Paint
Wood
Plywood
Hardboard, Wallboard

Features and Benefits:

Ready to Apply –
 No Thinning
Interior / Exterior
White Color
Helps Bond Paint
Primes and Seals
Helps Prevent Flaking,
 Blistering, Peeling
Top Coats
 Alkyds, Latex

Product Description: 400W ES White is an ultra-premium solvent based primer/sealer/bonder developed to meet 100 g/l VOC limits and solve many paint bonding problems. It provides excellent adhesion, sealing and bonding on many hard-to-coat surfaces. Clean and dull paintable surfaces may not need sanding, but sanding or dulling the surface is required on hard, glossy surfaces for maximum adhesion. 400W ES White can be used for both indoor or out-door applications and can be used with either oil/alkyd or latex topcoats. Not recommended under with strong solvent topcoats such as lacquers or two component epoxies or urethanes.



Product Use: Ideal prime coat for Wood, Hardboard, Plaster, Glass, Tile, Fiberglass, and Some Plastics. Always test a small area first for adhesion and topcoat compatibility first. Not recommended for polypropylene or polyethylene. Also, not recommended for tubs, sinks or showers where hot or continuous water contact occurs. XIM's Tile DOC is recommended for these surfaces. It will also bond to ferrous and non-ferrous metals. **Note:** * When extra rust protection is desired, use a rust inhibiting primer. (XIM 360 or XIM Corrosion Control) On extremely porous surfaces or on wood that is known to cause staining, a second coat may be needed prior to application of the top coat.

Packaging Data: **400W ES White #1144**

Gallons	- 4 per carton	Quarts	- 6 per carton
Pails	- 5 gallon capacity	Aerosols	- 12 per carton

Product Preparation: Always open can carefully. Apply directly from the can, no thinning required. Do not add extra solvent. If tinting is desired, use universal or industrial tinting colors, not to exceed two (2) ounces per gallon. It is a thin product and can settle. Shake or mix well before use

Note: A dark, solvent layer can form at the surface during storage. This will mix in easily. **Note:** The container lid employs a gasket to prevent evaporation of the solvent. When less than the full container has been used, careful resealing with the gasket in position is important to prevent solvent evaporation during storage.

Product Storage: One year at temperatures not to exceed 120° F.

Surface Preparation: Be sure the surface is clean and dry, free from dust, grease, wax, oil, loose paint, dirt and other surface contaminants. The first step is to clean with an abrasive detergent, rinse well and allow to dry. For very hard, glossy surfaces, dulling the surface with a carbide sandpaper is necessary for best adhesion. On ceramic surfaces use XIM's Etch-I-M etching cream to chemically dull the surface. Solvent wiping the surface with XIM GON™ Solvent Cleaner, XIM GON20 Water Based Cleaner or xylene is also recommended. Do not use mineral spirits, turpentine or any oily cleaning solvent.

Application Information

Spraying:

	Tip Size	Pressure	Equipment Mfg.
Airless Spray	0.011 to 0.015	Less than 1500 PSI	All Mfg.
HVLP Spray	9 Cap	8 PSI	Spraytech, Accuspray, tec.

When spraying, apply a light, but wet mist coat followed by a second light to medium coat. Thin film application is desired.

Brushing:

Use a natural bristle brush. Use a China Bristle/Nylon fiber blend brush (varnish style). An example is the Wooster Advantage 4734. Use a China Bristle/Nylon blend sash brush. An example is the Wooster Advantage 4732. These brushes are used with varnishes and other thin viscosity, solvent based products like urethanes and lacquers. The Foam Brushes will swell, but can be used with 400W ES. If using a Foam Brush, make sure the adhesive used to hold the foam together, is not affected by the solvents in the 400W ES. An examples is the Wooster Foam King 3 inch B3102, and it works well.

Rolling:

Use a short nap roller cover such as a 1/4 inch mohair cover designed for epoxies, urethanes and smooth surfaces. An example is the Wooster R 209. Also, use a 3/16 inch nap, shed resistant woven fabric cover designed for varnishes and enamels. An example is the Wooster RR-641 Pro/Dooz.. The 3/16 inch foam roller cover, Wooster R-265 Pro Tiz which is designed for all paints did not swell in tests. Always make sure the roller cover adhesive is not affected by the 400W ES solvent.

Once a compatible brush or roller is identified, use the following procedure:

1. Wet the brush or roller in the 400W ES
2. Work out the excess in the roller tray or on the inside edge of the can
3. Use light pressure when applying (heavy pressure could cause spatter or runs)
4. As you brush or roll, the 400W ES will thicken and become very workable.

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XIM 400W ES White Primer / Sealer and Bonder

Application Information Continued:

Air and surface temp. should be between 50°F and 90°F. It will dry to touch very quickly (20 to 30 min). A measurement of 1.0 to 1.7 mils wet will give the recommended dry film of between 0.75 to 1.25 mils respectively. One gallon will cover between 650 and 750 square feet per mil depending on film thickness and porosity of the surface. The topcoat can be applied in 2-3 hours. Thicker films can remain tacky for about 24 hours but will generally harden after 48-72 hours. Full cure is generally in 7-14 days. (Will depend on temperature and film thickness).

NOTE: When the topcoat is a deep, heavily tinted custom color or a Dry Fog top coat, allow the 400W ES White to dry for 24 hours before applying the topcoat. When 400W ES is applied over existing paints and finishes, it may soften or wrinkle the finish. Always test a small area, first, for compatibility. Flexible seams or caulks may cause cracking or loss of adhesion when coated with 400W ES. Not recommended for 100% silicone caulks. Plan your job in advance and always caulk seams or edges after painting. Compatible with Oil or Water Based topcoat paints.

Clean Up: XIM Reducto, XIM GON Cleaner or Mineral Spirits.

Potential Applications:

Building Material Plastic: More and more plastics are used in the building industry, including PVC sheeting and piping, vinyl shutters, vinyl molding and mill work, laminated Formica paneling and cabinets as well as fiberglass garage doors and other molded parts. First, remove old and loose paint then clean away wax, polish, grease, oil and other contaminants from the surface with a strong abrasive detergent. Wipe the surface with a cleaning solvent such as XIM GON Cleaner or xylene. Dry, then scuff sand the surface for maximum adhesion. Apply the XIM Bonder. Wait minimum of 2-3 hours and topcoat. Test for adhesion before starting the job.

Tile, Glazed Block and Brick, Porcelain: Decorative surfaces such as these can be restored and painted. First remove old paint and debris. Repair or patch any broken or damaged areas. Then clean away any wax, polish, grease, oil and other contaminants with a strong abrasive detergent. Wipe the surface with a cleaning solvent such as XIM GON Cleaner or xylene. For maximum adhesion scuff sand or etch the surface with XIM's etching cream, Etch-I-M, rinse well to remove any etching residues and allow to dry. Apply the 400W ES White Bonder and allow to dry for a minimum of 2-3 hours, then apply the topcoat. Not recommended for sinks, tubs or shower areas where continuous water or hot water can be present. Note: where flexible seams or soft caulking are present, do not paint over with the 400W ES White. Always plan your job ahead and caulk after painting. Always caulk edges or seams that can trap and hold moisture and, therefore, become the source of coating failure. For exterior jobs - where high water contact is expected or where moisture or dew may accumulate, two coats of the top coat paint are recommended.

Non-Ferrous Metals: With 400W ES White Bonder you can get a long lasting, durable job when painting aluminum doors and window frames, aluminum and copper flashing and trim. Clean away all corrosion and any old paint, dirt, wax and grease. Wipe the surface with a cleaning solvent such as XIM's GON Prep cleaner. Allow to dry then apply the 400W ES Bonder (only one coat is required) Allow the to dry for minimum of 2-3 hours, then apply the top-coat.

Physical/Chemical Data:	400W ES White Bonder	# 1144
Weight per Gallon :	10.65 lb/gallon	
Non-volatile by weight:	65.6%	Non volatile by volume: 45.2%
Viscosity :	22 seconds #2 Zahn Cup	
Spreading rate (@ 0.75 -1.25 mils DFT):	650 - 750 Square Feet per Gallon	
Application Conditions for both products:	50° F To 90° F	(Mix or Agitate before Use)
Drying Schedule: (ASTM D1640)	to touch: Generally 20-30 min. Can be up to 24 hours depending on temperature and film thickness to top coat: 2-3 hours @ 77° F and 50% RH 24 Hours if fast-dry Dry Fall or Deep-Tinted Top Coat dry hard: 7-14 days @ 77° F and 50% RH	
Flash Point (ASTM 3278-82):	0° F	
VOC :	Less than 100 g/l, 0.83 lb/gal.	(Aerosol: Less than 67% VOC by weight)
Recommended Film Thickness:	0.75 to 1.25 mil dry	(Since acetone evaporates quickly a measurement of 1.0 to 1.7 mils wet)
Flexibility (ASTM D522 - 1 mil cold rolled steel at 1 mil dry) :	Excellent	
Cross Hatch Adhesion (ASTM D3359, Method B at 1 mil dry) :	No loss	
Impact Resistance (ASTM D2794 - 100 in. lbs. at 1 mil dry) :	Pass	
Temperature stability of cured film:	Up to 250° F intermittently	
Gloss (60 deg, glossmeter):	Less than 10	
Top Coats Recommended : Oil/Alkyd, Latex	Not Recommended: 2K Urethane, 2K Epoxy , or Lacquers	

CONTAINS: Acetone, Methyl Ethyl Ketone, Petroleum Distillates

Vapor harmful. May affect the brain or nervous system causing dizziness, headache or nausea. Causes eye, nose, throat, lung and skin irritation. Harmful if swallowed. **Use only with adequate ventilation.** Do not breathe vapor or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow the respirator manufacturer's directions for respirator use. Avoid contact with eyes, skin and clothing. Wear safety glasses or goggles. Wash thoroughly after handling.

FIRST AID: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush with plenty of water for at least 15 minutes and get medical attention immediately; for skin, wash thoroughly with soap and water. If swallowed, do not induce vomiting. Get medical attention immediately.

Spray Gun Usage: When applying with spray gun equipment, vapors can build up rapidly and may cause flash fire. Contact the spray equipment manufacturer for recommendations when spraying with acetone based products. With all applications: vapors may travel to areas away from work site and ignite; use only where moving air will carry vapors outside.

KEEP OUT OF REACH OF CHILDREN

If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Limited Warranty: This product is made to the highest standards in order to provide you with consistently optimum results. If this product fails to perform as specified herein, XIM will furnish an equivalent amount of replacement product, or will refund the purchase price upon proof of purchase. XIM will not be liable for any indirect or consequential damages. This warranty does not include labor or the cost of labor for the application or removal of any paint or primer. There are thus no warranties of fitness or merchantability beyond that provided above. This warranty gives you specific legal rights which may vary from state to state.