

HIGH PERFORMANCE

TECHNICAL DATA

Product Description

Iron Prime 250 combines the trusted performance of a solvent-based formulation with the ability to meet many of today's regulations. The fast recoat time makes Iron Prime 250 an excellent choice for production environments or when time is critical. The excellent corrosion resistance and adhesion over properly prepared steel will protect surfaces from costly deterioration. Iron Prime 250 provides excellent gloss holdout for a wide variety of topcoats. Not intended for immersion service.

Intended Uses

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| <p>Apply to:</p> <ul style="list-style-type: none"> • Interior or exterior surfaces • Previously primed surfaces • Shop coat | <p>Apply to:</p> <ul style="list-style-type: none"> • Ferrous metal • Maintenance primer | <p>Protects:</p> <ul style="list-style-type: none"> • Tanks • Conveyors • Structural or support steel |
| <p>Protects:</p> <ul style="list-style-type: none"> • Equipment • Machinery | | |

The above are general recommendations and not intended to limit the use of Iron Prime 250. Test areas are always recommended to confirm results.
NOT INTENDED FOR IMMERSION SERVICE.

Physical Properties

Resin Type	Modified Alkyd
Finish/Sheen	Flat, 0-5 @ 60°
Colors	Gray PB-0625, Red PB-5625
Solids by Weight	77-79%
Solids by Volume	57-59%
Theoretical Coverage*	910-940 ft ² /gal @ 1 mil
Dry Film Thickness / Coat	2.0-3.0 mils (50-75 microns)
Wet Film to Achieve DFT	3.5-5.0 mils (87.5-125 microns)
Coverage at DFT*	315-473 ft ² /gal
VOCs	2.08 lbs./gal (250 grams/liter)
Reduction Solvents	TBAC (Tertiary-Butyl Acetate) Diamond Vogel N-8006 - Not typically needed.
Clean-up Solvents	Diamond Vogel N-3023 Xylol
Drying Time**	<p>Set to Touch: 10-20 minutes at 70°F (21°C) and 50% Relative Humidity</p> <p>Recoat Minimum: 1-1 ½ hours at 70°F (21°C) and 50% Relative Humidity</p> <p>Recoat Maximum: 1 month at 70°F (21°C) and 50% Relative Humidity</p>
<small>ASTM D1640-83 reapproved 1989</small>	

* Coverage rates are estimates based on the products volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity and texture.

** Dry times vary with surface temperature, air movement, humidity and film thickness. Finish coat selection may extend maximum recoat, please request additional information by contacting Diamond Vogel Technical Service for detailed information.

Performance Characteristics

Iron Prime 250 meets or exceeds the following performance testing criteria:

Test Name	Test Method	Results
Abrasion Resistance	ASTM D 4060, CS-17 Wheel 1kg Load, 1000 Cycles	0.2459 wear index
Adhesion Testing	ASTM D 4541 Elcometer Pull Test	500 lb./sq. in.
Adhesion Testing	ASTM D 3359 Cross Hatch	Not less than 5B average
Heat Resistance	ASTM D 2485 High Temperature Service	Passes at 250°F (121°C)
Pencil Hardness	ASTM D 3363	F
Flexibility Testing	ASTM D 522 (180° bend - ¼ in. mandrel)	Passes
Cyclic Weathering	ASTM D-5894 - 1,008 hours	no face blistering, face rust rated 10, 1 mm scribe creepage
Corrosion Resistance	ASTM B 117-94 Salt Spray (Fog) Test - 1,008 hours	no face blistering, no face rust, 1 mm scribe creepage
Humidity Exposure	ASTM D 4585 100% humidity @ 120° (49°C) - 504 hours	no blistering, face rust rated 10

Qualifications

Performance criteria meet or exceed Master Painters Institute (MPI) #76 and #79 approved standards SSPC-Paint 15 type 1.

Surface Preparation

All surfaces must be clean, sound, dry and free of all dirt, dust, wax, oil, grease, chalk and any other contamination that would interfere with new coating adhesion. Bare surfaces must be properly prepared prior to the application of this product.

New Ferrous Metal & Previously Painted Surfaces: Power or hand washing is recommended to remove contamination. If oil or grease is present, use of a cleaner/degreaser is required. All cleaning residue must be completely rinsed from the surface. Allow to dry. Remove all loose coatings, rust and corrosion by scraping, sanding or other abrading method as per SSPC-SP-2, Hand Tool Cleaning and SSPC-SP-3, Power Tool Cleaning. For new steel and complete removal of the old coating, abrasive blast according to SSPC-SP-6, Commercial Blast. Use proper abrasive to achieve a 1.5 to 2.0 mil profile as per SSPC-SP-6, Commercial Blast Cleaning. Blasted surfaces must be primed before flash rusting occurs.

Mildew: Remove by using a solution of one part household bleach and three parts water. Apply to mildewed area and scrub. Allow solution to remain on the surface for 3 to 5 minutes and then rinse completely and allow to dry before coating application.

Application

Stir material prior to application. Intermix containers to ensure color uniformity of all material. Protect product from freezing prior to and during application. Minimum surface and air temperature required for application is 40°F (4°C) and at least 5°F (3°C) above the dew point. While this product is not subject to freezing, curing is affected by temperature, humidity and air movement; cold temperatures will greatly increase drying time. Application at elevated temperatures, wind conditions, and/or low humidity may require special application procedures to achieve proper film formation. Abrasive blasted steel with blast profile of 1.5 to 2.0 mils, should have a minimum of 3.0 to 4.0 mils DFT per coat. Two coats of primer are recommended to achieve uniform coverage and maximum protection.

Airless Spray: Flush airless lines with Xylol. Equipment must be clean prior to start. Thinning is not normally required. Thin only as needed for workability. Apply a wet coat in even, parallel passes with 50% overlap to avoid bare areas and pinholes. If required, crosshatch spray at right angles.

Tip Orifice	Atomizing Pressure	Material Hose ID	Manifold Filter
0.013" to 0.017"	2500–3000 PSI	1/4"	60 mesh

Packaging

Shipping Weight

Product	1 Gallon	5 Gallon	Product	1 Gallon	5 Gallon
Iron Prime 250	1 Gallon Pail	5 Gallon Pail	Iron Prime 250	13.91 lbs. (6.31 kg)	69.34 lbs. (31.45 kg)

Storage

One year from date of manufacture when maintained in protected area at a temperature of 40° to 100°F (4° to 38°C). Subject to inspection thereafter.

Safety Precautions

***WARNING!** If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Paint products contain chemical ingredients, which are considered hazardous. Prior to use, read container label warnings and the current Safety Data Sheet for important health and safety information. Ensure these instructions are practiced during product application and cure. **Keep out of the reach of children.**

Safety Data

“Safety Data Sheets” are available from your Diamond Vogel representative or the Diamond Vogel website at www.diamondvogel.com. Prior to use of this product, obtain and review the Safety Data Sheet for health and safety information. Read and observe all precautionary notices on container labels. **NOT INTENDED FOR RESIDENTIAL USE.**

Limited Warranty

The technical data and suggestions for use contained in this document are true and correct to the best of our knowledge at the date of issuance. The statements of this document do not constitute a warranty, expressed or implied, as to the performance of these products. Since Diamond Vogel does not control the application of its products, or the condition of the surfaces to which they are applied, Diamond Vogel's liability will under no circumstances exceed replacement of the product. **All technical information is subject to change without notice.**

Additional Information

Cautions and Warnings information is located on the back panel of each product label. For current information regarding VOC regulations for specific geographical regions, please contact Technical Service at Diamond Vogel Corporate Headquarters, (Contact information is located at the bottom of the page).