

Technical Data Sheet

IB Urethane Metal Primer

Moisture Cure Urethane Metal Primer

IB Roof Systems®

Product Description



IB Urethane Metal Primer is a high performance, single component, aluminum pigmented, moisture cure urethane, rust inhibiting primer that is designed as a primer coat over a variety of metal substrates to help reduce the corrosion process and enhance the bonding of the IB urethane finish coat.

Packaging

5-Gallon Pail

Features and Benefits

- Moisture cure urethane-based
- Low viscosity helps penetrate pitted and rusted areas, as well as porous and scaly metals for greater corrosion resistance and bond enhancing properties
- Excellent adhesion to a variety of existing coatings and metal substrates
- Color: Aluminum

Product Use

IB Urethane Metal Primer is used as a rust inhibitor and metal primer coat over a variety of metal substrates to help reduce corrosion and enhance the bond of the IB urethane finish coat.

Ordering Information

IB Urethane Metal Primer

Item Code	Description	Size	Class
9-UMP5	IB Urethane Metal Primer	5-gal	55

Coverage Rate (approximate)

Approximate coverage rate is 0.25 – 0.5 gallons per 100 square feet (4-8 wet mils) depending on substrate type and roughness. Heavy rust areas will require an additional coat.

Yield (0.25 – 0.5 gal/100 sq. ft.) = 4 – 8 wet mils/2.1 – 4.2 dry mils.

See recommendations for specific applications. Yields will vary depending upon system selected and the smoothness and absorbency of substrate.

Temperature Precautions

Do not apply this product below 40°F (4°C) or in weather conditions where the temperature will drop below 40°F (4°C) during the curing cycle. Upper temperature restriction (both air and substrate) for application of IB Coating products is 120°F (49°C). If the substrate temperature exceeds 120°F (49°C), IB Coating products should be applied during cooler periods of the day. No coating should be applied unless surface temperature is 50°F (10°C) minimum and 120°F (49°C) maximum.

Relative Humidity Precautions

Acrylic products are moisture sensitive. Do not apply this product when it is raining or if the threat of rain exists. Do not apply it when the dew point is less than 5°F below the ambient temperature. Do not apply in conditions when the relative humidity exceeds 90%.

Storage

Always store in cool, well-ventilated area. Avoid storing container directly on the floor or against an outside wall. For best results, keep product stored above 60°F (15.6°C) or below 85°F (29.4°C). Do not store in direct sunlight or in temperatures above. Keep from freezing. Allow material to set at room temperature for 24 hours prior to use.

Mixing

No thinning or reduction is necessary. Do not dilute.

Physical Properties

Property	Test Method	Typical Value
% Solids by Volume	D2697	52% ± 2%
% Solids by Weight	D1644	51% ± 2%
Viscosity	D2197	500 - 3000 cps
Weight per Gallon	-	10.3 lbs./gal
VOC Content	EPA M24	< 250 g/L
Dry Time @ 75°F (24°C)	-	30-60 minutes, dry to touch
Surface Dry Time @ 75°F (24°C)	-	2-2.5 hours @ 75°F (24°C), 45% RH
Hard Dry Time @ 75°F (24°C)	-	4 hours @ 75°F (24°C), 45% RH
**Shelf Life: (unopened container stored at temperatures between 60°F and 90°F)	-	6 months from date of manufacture.
Store out of direct sunlight in a cool, well-ventilated area. Avoid storing container directly on the floor or against an outside wall.		

Application Guidelines

Application Equipment

Airless Sprayer:

- **Output:** Minimum 30:1 fluid to air ratio / 1.0 gal per minute
- **Pressure:** 3,000 psi
- **Filter Screen:** 30 mesh or larger
- **Spray Gun:** Contractor rated for pressure, equipped with a ball-bearing swivel for ease of handling.
- **Hoses:** 3/8" min ID up to 75 ft., 1/2" min ID up to 200 ft., and 3/4" min ID over 200 ft. Use largest diameter at pump. Hoses rated to 2X maximum pump pressure. Hose lining should be compatible with coating and required cleaning materials.
- **Gun Hose:** 3/8" ID x 6 feet high pressure rated with adequate WPSI.
- **Extension:** 12" gun extension is recommended
- **Orifice Tip:** .013" to .018" diameter, wide angled fan angle of 40 to 50 degrees is recommended. A reversible self-cleaning type of nozzle is also recommended. Exact orifice size will vary with temperature of the material and ambient temperatures.

Brush: No reduction necessary. Use synthetic filament paint brushes. Do not over-brush as material may start to pull.

Roller: No reduction necessary. Use 1-1/4" solvent resistant nap rollers. Keep a wet edge to avoid pulling. Avoid rapid rolling which can cause bubbling.

Spraying: When spraying material should be at least 75°F (24°C). Before applying additional coat, the previous coat must be completely dry and cured.

Caution: Application of IB Urethane Metal Primer with spray equipment may require some masking and erection of wind screens to prevent overspray occurrences and damage to surrounding structures, surfaces, vehicles, property, or persons.

Surface Preparation

The substrate must be free of areas of ponding water, ice, snow, rain or dew, dirt, dust, grease, oil, loose granules, gravel, peeling coating and other foreign contaminants, or other debris that would inhibit adhesion of coating. If such conditions exist, the roof surfaces should be properly prepared and cleaned using the specified IB cleaning solution in order to receive the new coating system.

Mildew must be removed by power washing and scrubbing with a bleach solution of 1 part bleach and 2 parts water. Repeat if necessary. Rinse thoroughly and allow it to dry.

Ferrous substrates must be properly prepared for maximum corrosion protection and long service life. All loose rust must be removed by power washing, wire brushing, and/or sand blasting.

Rough, irregular profiles which are difficult to coat. To prepare these areas, chip off all flux, weld, spatter, or laminations left from welding. All mill scale, rust, etc. should be removed by wire brushing or sand blast cleaning to obtain an approximate 2-mil profile.

New steel and aluminum surfaces should be cleaned, or wire brushed to a 2-mil profile to achieve maximum adhesion.

New galvanized or galvalume steel must be cleaned to remove any rolling oils or grease before application of IB Urethane Metal Primer.

Non-ferrous substrates should be wire brushed to remove all loose coatings, rust, scale, or other contaminants. Prior to coating, wipe clean with a recommended cleaner/solvent.

Existing coatings must be tested to determine compatibility and adhesion. Contact IBRS Technical Department at 800-426-1626 for recommendations regarding specific applications.

Application

Adhesion Test: Existing coatings must be tested to determine compatibility and adhesion. Apply 6" – 12" square of the coating and embed a piece of 1" wide IB Fabric into the IB Urethane Metal Primer, covering with the desired base coat or topcoat and leaving a minimum 2" tail of the fabric exposed. Allow to cure before performing a 90° pull test of the fabric tail to test adhesion of the IB Urethane Metal Primer to the substrate.

Metal: To properly prepared substrate; apply a prime coat of IB Rust Primer to the affected area, at the rate of 0.25 – 0.5 gallons (0.95 – 1.89 L) per 100 square feet (4 – 8 wet mils). Minimum recommended dry film thickness is 2 to 4 mils. A "tack" coat is not recommended.

On rough or porous surfaces, it may be beneficial to back roll or brush a first coat to work the primer into the surface with mechanical action. Follow with a full wet coat. Alternatively, rough, or porous surfaces can be given two wet full coats at 0.5 gallon (1.89 liters) per 100 square feet per pass.

When applying in separate applications, apply at right angles to the previous coat. Coating must be evenly applied and pinhole-free. Before applying additional coat, the previous coat must be dry to the touch. If any contamination is present on the cured surface, it must be washed and completely dry before application of subsequent coats.

Curing and Re-Coat Time:

IB Urethane Metal Primer must be recoated within 48 hours of application. Under normal drying conditions of 75°F (24°C) and 45% RH, IB Urethane Metal Primer will be sufficiently cured to accept a recoat of IB Urethane Metal Primer or a urethane finish coat in 1 - 3 hours. Once completely dry, the substrate may be coated with an IB urethane finish coating at specified rates. Additional drying time must be allowed during colder temperature applications. Prior to applying the urethane finish coat.

Limitations

- Refer to Substrate Preparation guidelines for proper preparation, cleaning and primer roof with any applicable bond enhancing primer before commencing with application of IB Urethane Coatings.
- This product cures by reacting with air moisture. Partially used containers should not be left open and exposed to the air. Curing in the once opened container can be slowed by placing plastic wrap directly over the surface of the coating and tightly resealing the container.
- This product dries extremely rapidly on tips, brushes, and rollers. They should be cleared frequently and immersed in water when temporarily not in use, to prevent drying and tip clogging. Once dry,

overspray from this product is extremely difficult to clean up or remove.

- Be sure that areas that are not to be painted are well protected from overspray. Once dry, xylene may be required for cleanup.
- This product cures by water evaporation only. Do not attempt to apply product when weather conditions are not conducive to drying. Refer to temperature and relative humidity precautions.

Clean Up

Clean spray equipment containing uncured material by flushing with xylene (xylol), IB Urethane based coatings and primers cure by reaction with moisture. DO NOT USE WATER OR RELAINED SOLVENTS. Do not leave material in spray guns, pump equipment, and/or hoses for prolonged periods unless equipment contains moisture lock hoses, fittings, and seals. Without these, material will cure on hose walls and at unsealed connections possibly causing an increase in operating pressure and material flow restriction.

Disposal

Empty containers must be disposed of in an approved landfill in accordance with local, state, and federal regulations.

Caution

This primer is not intended for non-industrial use. The solvents used in this product are flammable and, in some cases, irritating to the eyes and skin. Keep containers tightly closed and away from heat, sparks, and open flame. IB Urethane Metal Primer contains chemically active isocyanate groups that react with water, alcohols, and amines. Avoid breathing vapors and contact with skin. Use appropriate chemical cartridge or air-supplied respirators where limited air movement might occur. In confined areas, adequate ventilation or fresh air supplied hoods must be provided during application. Avoid prolonged and repeated contact with skin. Do not take internally. Avoid eye contact as this material has adhesive properties. Wear appropriate protective clothing for the skin. Refer to product Safety Data Sheet (SDS) for additional information pertaining to this product and prior to use or handling. Keep out of reach of children. If swallowed, DO NOT induce vomiting. Drink 1 to 2 glasses of water. Call a physician immediately.

Disclaimer

All values given are approximate and are subject to change without notice. There is no implied or express warranty given through these values or statements, nor are there any assertions that the product purchased has been individually tested to conform to these standards. Testing is performed on a random basis by "in-house" and independent "third party" evaluation for the purpose of classification and or approval. Acceptance, purchase, and selection of these products are the sole responsibility of the buyer or buyer's representative. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product only.

LIMITED WARRANTY/EXCLUSIONS

TO THE EXTENT ALLOWED BY LOCAL LAW, EXCEPT AS FORTH BELOW, SELLER WARRANTS THAT THIS PRODUCT SHALL BE FREE OF ANY DEFECT IN MATERIAL OR WORKMANSHIP UNDER NORMAL USE FOR A PERIOD OF ONE YEAR FROM THE DATE OF PURCHASE. IB ROOF SYSTEMS MAKES NO OTHER WARRANTIES WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE GOODS HEREIN SOLD. THIS WARRANTY DOES NOT EXTEND TO ANY DEFECT OR FAILURE CAUSED BY MISUSE AND/OR INCORRECT APPLICATION. SINCE THE USE OF THE HEREIN DESCRIBED MATERIALS INVOLVE MANY VARIABLES IN MEANS AND METHODS OF APPLICATION, HANDLING/STORAGE AND/OR USE, THE USER IN ACCEPTING AND USING THESE MATERIALS ASSEUMES ALL RESPONSIBILITY FOR THE END RESULT. THE PURCHASE OF IB ROOF SYSTEMS PRODUCT IS SUBJECT TO THE TERMS AND CONDITIONS HEREIN. NO EMPLOYEE OR AGENT OF SELLER IS AUTHORIZED TO ALTER THE TERMS HEREOF. IF THE PRODUCT IS PROVED TO BE DEFECTIVE, THE EXCLUSIVE REMEDY, THE BUYER'S SOLE REMEDY, AT IBRS'S OPTION SHALL BE TO REFUND THE PURCHASE PRICE OR REPLACE THE DEFECTIVE PRODUCT ONLY. IN NO EVENT SHALL IB ROOF SYSTEMS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHETHER BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE) OR ANY OTHER CLAIMS, OR DAMAGES, INCLUDING DAMAGES WHICH MAY EXCEED THE ORIGINAL COST OF THE PRODUCTS MADE THE BASIS OF ANY CLAIM REGARDLESS OF THE LEGAL THEORY ASSERTED INCLUDING NEGLIGENCE, WARRANTY OR STRICT LIABILITY. NOTE: SOME OR ALL OF THE FOREGOING MAY NOT APPLY OR MAY BE INVALID UNDER THE LAWS APPLICABLE TO BUYER'S PURCHASE OR CLAIM.