

Technical Data Sheet

IB Urethane Finish Coat

Moisture Cure Aliphatic Urethane Finish Coat

IB Roof Systems®

Product Description



IB Urethane Finish Coat is a high performance, single component, moisture cure elastomeric polyurethane coating, that is designed to provide excellent adhesion, and flexibility to a variety of substrates. Has high elongation and high tensile strength properties which helps enhance the bonding of the IB Urethane Finish Coat.

Packaging

5-Gallon Pail and 55 Gal drums

Features and Benefits

- Moisture cure, polyurethane-based
- High gloss finish
- High elongation and high tensile strength properties
- Excellent weathering and UV resistance
- Color: White

Product Use

IB Urethane Finish Coat is used as a reflective finish coat in conjunction with IB Urethane Base Coat over a variety of substrates to provide a tough, resilient film to concrete, aged, modified bitumen and BUR, metal, polyurethane foam (PUF), and single-ply membranes.

Ordering Information

IB Urethane Finish Coat			
Item Code	Description	Size	Class
9-UFCW5	IB Urethane Finish Coat White	5-gal	55
9-UFCW55	IB Urethane Finish Coat White	55-gal	55

Coverage Rate (approximate)

Approximate coverage rate is 1.0-gallon (3.78 L) per 100 square feet (16 wet mils) in a single pass. It is recommended to back roll the initial coat of IB Urethane Finish Coat to eliminate pinholes. If thin spots or pinholes remain, a second pass will be needed. Allow 16 - 24 hours cure time between coats.

Yield (1.0 gal/100 sq. ft.) = 16 wet mils/12 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 or if frost, dew, mist, condensation is present, or in high humidity conditions. 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

Polyurethane 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 50°F (10°C) or below 95°F (35°C). Do not store in direct sunlight or in temperatures above. Keep from freezing. Allow material to condition at room temperature to a material temp between 65°F and 85°F (18°C – 30°C) for 24 hours prior to use.

IB Urethane Finish Coat					
Solar Reflectance / Thermal Emittance / SRI Values					
Color	Solar Reflectance (C1549)		Thermal Emittance (C1371)		SRI Value (E1980)
White	Initial	3-Year Aged	Initial	3-Year Aged	Initial
					3-Year Aged
	0.84	0.68	0.90	0.90	106
					83

Physical Properties		
Property	Test Method	Typical Value
% Solids by Volume	D2697	75% ± 2%
% Solids by Weight	D2697	76% ± 2%
Ultimate Elongation	D412	475% (initial)
Tensile Strength	D412	2390 psi
Tear Strength	D624	280 pli
Viscosity	D2197	3500 - 7000 cps
Weight per Gallon	-	10.1 lbs./gal
VOC Content	EPA M24	< 100 g/L
Low Temperature Flexibility, 1/4" mandrel	D6994	Pass @ -15°F (-26°C)
Moisture Vapor Transmission cured 7 days @ 77°F (25°C), 50% RH 15 mils DFT	D6994	3.4 Perms
Shore A Hardness	D2240	90
Water Absorption	D471	4%
Cure Time 75°F (24°C) , 45% RH	-	16-24 hours to recoat
**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 3.0 gal per minute
- **Pressure:** Minimum 3,500 psi high-pressure airless pump
- **Transfer Pump:** 3:1 transfer pump to prevent cavitation
- **Spray Gun:** Contractor rated for pressure (5000 psi), equipped with a ball-bearing swivel for ease of handling.
- **Hoses:** 3/4" min ID minimum up to 75 ft., 1" min ID up to 200 ft., and 1-1/2" min ID over 200 ft. Use largest diameter at pump. Hoses rated to 2X maximum pump pressure. Hose lining should be BUNA-N jacketed to prevent moisture contamination. Do not use a hose that has been used for Acrylics. The liner will absorb moisture and start the silicone cure process.
- **Orifice Tip:** .028" - .35" diameter, wide angled fan angle of 40 to 50 degrees is recommended. A reversible self-cleaning type 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 1/4" to 3/8" 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 Finish Coat 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.

Mixing

No thinning or reduction is necessary. Do not dilute.

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.

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 Finish Coat, covering with the desired base coat or topcoat and leaving a minimum 2" tail of the fabric exposed. Allow to cure for 2-3 days before performing a 90° pull test of the fabric tail to test adhesion of the IB Urethane Finish Coat to the substrate.

To properly prepared substrate (that has already been coated with IB Urethane Base Coat, apply a single coat of IB Urethane Finish Coat at the rate of 1.0 gallon (3.78 L) per 100 square feet (16 wet mils) in 1 pass. It is recommended to back roll the initial coat of IB Urethane Finish Coat to eliminate pinholes. If thin spots or pinholes remain, a second pass will be needed. Allow 16 - 24 hours cure time between coats. Where necessary, apply an additional coat at 1.0 gallon (3.78 L) per 100 square feet (16 wet mils).

Curing and Re-Coat Time:

IB Urethane Finish Coat under normal drying conditions of 75°F (24°C) and 45% RH, will be sufficiently cured to accept a recoat of IB Urethane Finish Coat in 16 - 24 hours. 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 only. 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.
- If a cured film has formed on the top of the product, it should be carefully cut away prior to mixing the remainder of the product in the container. The surface film formation does not affect the performance of the remaining product.
- Be sure that areas that are not to be painted are well protected from overspray. Once dry, xylene may be required for cleanup. If xylene is prohibited by regulations, acetone may be used in lieu of xylene.

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 product 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 Finish Coat 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.

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