



# POLYURETHANE 300 FINISH COAT WHITE OR GRAY PREMIUM POLYURETHANE ROOF COATING

## TECHNICAL DATA SHEET

### PRODUCT DESCRIPTION:

ERSystems® Polyurethane 300 Finish Coat White is a reflective, cool, high performance elastomeric polyurethane coating. The product is a liquid applied, single component, moisture-cured polyurethane coating. Polyurethane 300 Finish Coat is designed to provide a combination of superb adhesion to a variety of substrates and a balance of high elongation and high tensile strength. Polyurethane 300 Finish Coat is a "tough" coating and provides the ultimate in waterproofing.

### TYPICAL PROPERTIES:

Property	Typical Value
ASTM D-6083 PASS	
Percent Solid:	80%
Viscosity:	2500-7500 cps
Ultimate Elongation:	400%
Tensile Strength:	500-600 psi
Moisture Vapor Transmission ASTM E-96 66 Procedure	(a) 15 mil (0.015") Dry Film 3.7 Perm ± 0.6 (b) 30 mil (0.30") Dry Film 2.4 Perm ± 0.4 Cured 7 Days @ 77° F 50% RH
Weight/Gallon	10.4 lbs.
VOC Content	282 g/l
Hardness ASTM D-2240	56
Water Absorption ASTM D-471	Approximately 1% BY WEIGHT
Cure Time	15-hours to recoat (75° F 45% RH)
Shelf Stability	6 months
Reflectivity-White	Initial 79%, 3 Year Aged 72%
Emittance-White	Initial 0.90, 3 Year Aged 0.89

### APPROVALS:

- Miami Dade NOA# 14-0606.01
- CRRC/Energy Star Approved
- Title 24 Compliant

### TYPICAL USES:

Polyurethane 300 Finish Coat has high solids consistency designed to provide an economical tough film Finish. It has excellent adhesion to metal roofing and Polyurethane 300 Finish Coat White or Gray Coat over polyurethane foam and concrete, aged modified bitumen, aged BUR, wood and other substrates.

### COLORS:

Standard colors are white or Gray. Note: White color changes to off-white after sun exposure and fades to brighter white over time.

### PACKAGING:

- 5 Gal. Pail



### APPLICATION EQUIPMENT:

Application may be by brush, roller or airless spray.

- **Brush or Roller:** Recommended for flashing, small inaccessible areas or where over spray may be a problem. Use a medium nap solvent resistant roller.
- **Airless Spray Equipment:** Airless spray equipment should be capable of 3 gallon per minute capacity at 3500 psi. 3500 psi at the spray gun is essential to produce the desired pattern. Polyurethane 300 Finish Coat White or Gray is designated a "medium elastomeric coating" with high viscosity for pump purposes. 3/4" high pressure hoses perform well. The airless spray gun should be equipped with a ball-bearing swivel for ease of handling. Recommended orifice size is .028" - .035" diameter, wide-angle fan pattern. A reverse-a-clean nozzle is recommended. Exact orifice size will vary with temperature of the material and weather condition.

### GENERAL APPLICATION:

- All surfaces to be coated must be clean, dry, and free of contaminants, such as dirt, oil, grease, loose coatings or debris. Power wash blasting is typically required to remove contaminants. The initial coat of Polyurethane 300 Finish Coat White or Gray is usually back rolled to eliminate pin-holing. Some applications may require a second pass (where a rougher, irregular surface exists). Allow 10 - 15 hours cure time between coats. Polyurethane 300 Finish Coat White or Gray can be applied at 2.0 gallons per square in 2 passes.
- In planning application of Polyurethane 300 Finish Coat White or Gray consider environment and weather related conditions such as frost, dew, mist, condensation, humidity, and temperature. Temperature should be above 40° F, more than 5° F. above the dew point and rising, for best application results.
- Application of Polyurethane 300 Finish Coat White or Gray with spray equipment may require some masking and possible erection of wind screens to prevent over-spray and drift damage.

### Over Polyurethane Foam:

- (See Polyurethane Foam Insulation Roof Guideline - Polyurethanes) Follow the detailed instructions regarding characteristics of the Polyurethane foam required and preparation of the surface per the Guideline. As a base coat, apply Polyurethane 300 Finish Coat White or Gray at 1.0 gallon per square in 1 pass. Allow to cure, and finish with 2.0 gallons per square of Polyurethane 300 Finish coat White or Gray in 2 coats. Rough irregular foam may require an additional gallon of Polyurethane 300 Finish Coat White or Gray per square to achieve the uniform mil thickness desired.

### Over Concrete:

- (See Concrete Roof Guideline - Polyurethanes) Follow the detailed instructions in the Guideline regarding concrete surface preparation prior to applying the Polyurethane 300 Finish Coat White or Gray.
- Once the concrete surface is properly prepared, apply Polyurethane 300 Finish Coat White or Gray as a base coat at 1.0 gallon per square in 1 pass. Allow to cure, and finish with 2.0 gallons per square of Polyurethane 300 Finish coat White or Gray in 2 coats. Rough irregular concrete may require an additional gallon of Polyurethane 300 Finish Coat/square to achieve the uniform mil thickness desired.

### Over Aged Modified Bitumen and Aged BUR:

- Aged Modified Bitumen and Aged BUR Roof Restoration Guideline). Follow the detailed instruction in the Guideline regarding Aged Modified Bitumen and Aged BUR prior to applying the Polyurethane 300 Finish Coat White or Gray.
- Once the Aged Modified Bitumen or Aged BUR surface is properly prepared, apply a minimum of 1 gallon per square of Polyurethane 300 Finish Coat White or Gray as a base coat in 1 pass. After allowing the base coat to cure, apply the finish coat of Polyurethane 300 Finish Coat White or Gray at 2.0 gallons per square in 2 coats. Rough, irregular, and badly alligatored surfaces may require a full ply of polyester fabric across the entire field of the roof. An additional gallon of Polyurethane 300 Finish Coat White or Gray/square may be required to achieve the uniform mil thickness desired.

### RE-COAT TIME:

- Polyurethane 300 Finish Coat White or Gray will typically cure sufficient to re-coat in 16 - 24 hours, at 75<sup>0</sup> F. and 45% R.H. Lower temperature and lower humidity will typically retard the cure rate.

### APPLICATION LIMITATION:

- Prior to the application of any top coat over new or freshly applied asphalt based product consult with the asphalt product manufacturer or NRCA guidelines for necessary asphalt cure times prior to coating.

### TEMPERATURE CONSTRAINTS:

- Cold temperatures influence viscosity and pumping/handling characteristics of Polyurethane 300 Finish Coat White or Gray. Heat increases and cold decreases the flow of Polyurethane 300 Finish Coat White or Gray. When temperatures fall below 60<sup>0</sup> F., Polyurethane 300 Finish Coat White or Gray can best be applied after storage at 70<sup>0</sup> F. or higher for a minimum of 48 hours prior to usage. For ease of application, material temperature should be 60<sup>0</sup> F. minimum. If Polyurethane 300 Finish Coat White or Gray is to be pumped at temperature below 60<sup>0</sup> F. insulated or heated hoses may be required. For additional cold weather application techniques and information, consult ITW POLYMERS SEALANTS NORTH AMERICA. The temperature service range is -50<sup>0</sup> F to 200<sup>0</sup> F. The substrate temperature range for application is 40°F – 120°F.

### LIMITATION:

- Polyurethane 300 Finish Coat White or Gray 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. 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.

### CLEAN UP:

- Upon completion of the application, tools, hoses and equipment must be cleaned immediately with xylene (xylol) solvent.

### CAUTION:

- Contains polyurethane resin and mineral spirits. If swallowed, do not induce vomiting. If splashed in eyes, flush with clean water for a minimum of 15 minutes. In either case, call physician immediately. If splashed on skin, wash thoroughly with soap and water. Avoid breathing vapors and spray mists. Capable of producing severe dermatitis and bronchial spasms. Keep away from heat, sparks and open flames. Close container after use. Keep out of reach of children.
- The flow of material through pump and system could create static electricity. When pumping flammable materials, all equipment must be properly grounded to prevent static discharge and sparking, which could cause fire or explosions. Use only conductive or grounded air and material hoses, and be sure that your compressor and pump are properly grounded per manufacturer's recommendation.

PRIOR TO USE OF THIS MATERIAL,  
READ ALL APPROPRIATE SAFETY DATA SHEETS

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ITW Polymers Sealants North America, Inc.