



## PolyBrite® Acrylic Coating Specifications

### Liquid applied roof coating for TPO Single Ply roofing substrates

### PolyBrite 70 Labor and Material Limited Coating Warranty (5, 10, 15 or 20 Year options)

#### Part 1 – General:

**Qualifications of Contractor:** The Contractor shall be a registered applicator for Polyglass USA for application of its roof coatings products, and shall have a minimum of three (3) years experience in the application of elastomeric roof coatings.

**Qualifications of Manufacturer:** Manufacturer of the fluid applied elastomeric coating system shall have a proven track record of successful installations of elastomeric technology. Acrylic products shall be manufactured exclusively from 100% acrylic resins. Manufacturer must be certified ISO 9001:2008.

**Testing and Labeling:** The coating system to be U.L. Classified tested in compliance to UL790 Class A fluid-applied system for maintenance and repair of existing Class A, B or C roofing constructions. Products to be subject to Underwriters Laboratory Follow-up Services. The acrylic coating to be FM Global Approved and listed as an acceptable recoating system over existing roof substrates. The acrylic coating to be approved by Miami-Dade County Building Code Compliance with as active Notice of Acceptance (NOA). The Manufacturer shall also provide recognized, third party independent test results confirming the coating system's conformance to ASTM D6083-05. Individual container labels must include the following information or they will be rejected at the jobsite: Manufacturer's name, product name, type and class of material, all applicable Code and Testing approval logos, batch or lot number, mixing and application instructions, and precautions.

**Field Quality Control:** The overall weather conditions, including surface temperature, surface moisture, ambient temperature, relative humidity and wind velocity shall be recorded by the Contractor, at designated time intervals, on the Daily Quality Control Report form if so requested by the Architect or Owner.

This product cures by water evaporation only. It is very important that this product is not used when weather conditions are below 50°F. or when there is a chance that the temperature could fall below 32°F within a 24 hour period after application. Do not apply at temperatures greater than 120°F.

We also do not recommend application of this product if rain or dew is likely to occur before drying of product. Late afternoon application is not recommended if high humidity conditions exist, that could cause high moisture concentration of the surface overnight. Thin coat applications will dry faster for those marginal spray days when the best drying conditions are not possible. Drying time is temperature, humidity, and film thickness dependent.

Verification of Protective Coating Thickness: During application of the elastomeric coating, the wet film thickness shall be measured and recorded daily, along with the quantity

and batch numbers of the material applied and total square feet coated, on the Daily Quality Control form.

**Warranty:** Labor and Material Limited Coating

#### Part 2 – Products:

Polyglass PolyBrite 79 Thermoplastic membrane primer.

Polyglass PolyBrite 70 – Premium, elastomeric water-based reflective roof coating.

Polyglass PolyBrite 71-HS – High Solids, premium grade, water-based elastomeric base / surface coating.

Polyglass PolyBrite 72 – Premium grade, water-based elastomeric mastic.

Polyglass PolyBrite Fabric.

**Product Handling/Storage:** All materials, except those that are shop fabricated shall be delivered to the job site with their original labels intact. Bulk materials, shall be identified by the manufacturer and product name. All materials shall be stored in accordance with the instructions of the manufacturer prior to their application or installation. No wet or damaged materials will be used in the application. Application of all roofing shall be accomplished in such a way that each area will be complete at the end of each day's work. All roof edges and incomplete flashing shall be protected against water entry, particularly between work periods. Protect from freezing at all times.

#### Part 3 - Execution

**Surface Inspection:** Inspect all roof surfaces to receive work specified under this section to ensure that the following conditions exist: Roof surfaces shall be clean, dry, and structurally sound, stable and well secured. The roof surface shall be free of ponding water. A roof surface that allows standing water 48 hours after a rain shall be considered unacceptable. Roof must have positive drainage. Inspect condition of flashing details adjacent to protrusions, penetrations, roof mounted equipment, curbs, walls, parapets, drains and roof edge to ensure that details are acceptable and will maintain a weather-tight installation after being properly detailed and coated. All seams must be probed and if found to be deficient, repaired.

Polyglass recommends determining moisture content of existing substrate, insulation and deck. Moisture content of 15% or greater indicates a potential problem. Work shall not proceed until the cause of high moisture content is verified and the condition is corrected.

**Surface Preparation:** All surfaces shall be clean and dry, and free of any dirt, dust, gravel, oil, surface chemicals or other contaminants that may interfere with optimum adhesion. Any unsound areas in the roof deck or insulation, including blisters, delamination, deterioration, excessive moisture content, etc., shall be repaired or replaced. Remove heavy deposits of dirt, leaves, pine needles and other debris using a broom or air blower. Any rocks, branches or other large foreign objects should also be removed. Use a stiff broom to



agitate the surface to increase effectiveness for dirty surfaces. Power rinse the roof with clean water using a minimum 2,000 psi (13,790 kPa) pressure washer. Allow roof surfaces to dry thoroughly prior to application of the fluid applied coatings. In some cases, a second application of Rinseable primer may be required.

**Adhesion Test:** Recommended to determine positive adhesion will be achieved. One (1) test every 10,000 sq. ft. Procedure: In accordance with ASTM D 903. Clean area at least 12 inches by 12 inches. Prime area and permit to cure. Coat area at specified rate. While coating is still wet, embed 2-inch wide polyester fabric across test patch leaving 6-inch long dry section outside of test patch. Apply second coat to totally encapsulate flashing fabric and allow to cure for 14 days minimum. Pull dry end of flashing fabric at 180 degree angle with calibrated scale to failure of adhesion. Passing criteria: two (2) pounds minimum resistance prior to failure. If adhesion test fails, additional cleaning and/or priming may be required.

**Primer:** Prime all TPO surfaces with one coat of PolyBrite 79 Single Ply primer at the rate of 1 gallon per 300 sq.ft. Allow to dry. Consult the PolyBrite 79 Technical Data Sheet for application procedures.

**Flashing and Repairs:** Reinforce seams as necessary with PolyBrite Polyester Fabric and either PolyBrite 72 or base coat material. PolyBrite Polyester Fabric must be coated with base coat material each day of application. Minimum width of fabric over seams to be six (6) inches. Tighten or re-secure all terminations, and caulk termination bars and counterflashing. On all mechanically fastened, as well as fully adhered single-ply systems, remove and reinstall all fasteners that are backed out or "tenting". Relocate the fastener no more than six (6) inches (15 cm) from its original location. Use FM Global approved stress plates and fasteners when replacing defective or worn fasteners. Repair all loose, torn or open seams in the roof membrane using PolyBrite 72 and PolyBrite Polyester Fabric. Repair any tears, breaks, holes (including those from fastener relocation or protruding fasteners), or other openings in the roof membrane using PolyBrite 72 and PolyBrite Polyester Fabric.

Reinforce detail areas, around the base of all vents, stacks, fans and other protrusions, around all drains and scuppers, and around the base of all HVAC units and other roof-mounted equipment using PolyBrite 72 or base coat material and PolyBrite Polyester Fabric. All flashing reinforcement to cover entire flashing surface and must extend a minimum of

three (3) inches onto the horizontal roof surface. At drip edges, refasten all metal flanges and reinforce using PolyBrite 72 and PolyBrite Polyester Fabric.

**Field Application:** All roof preparation materials shall be allowed to fully dry prior to full roof surface application of the elastomeric coating. Immediately prior to application of the coating, all dust, dirt and other contaminants shall be blown off the roof surfaces to be coated using high pressure compressed air. It is often easier to visually see splits, tears or other damage in the roof surface after application of the first coat. For this reason the roof surface should be inspected after application of the first coat for any damage that was not detailed previously. The entire roof substrate shall receive elastomer coating applied as follows:

Apply a base coat of PolyBrite 70 at a minimum rate of 1.0 gallon per 100 sq. ft., 16 wet mils (.5 l/m<sup>2</sup>). After allowing the base coat to dry, apply one (1) coat of PolyBrite 70 White at a minimum rate of 1.0 gallon per 100 sq. ft., 16 wet mils (0.5 l/m<sup>2</sup>), per coat. Use a medium-nap roller or airless spray to apply the elastomeric coating. Apply consecutive coats in a perpendicular direction to the previous coat. Total dry mil thickness (DMT) to be a minimum of 16 mils for a 5 year warranty.

Apply additional coats of PolyBrite 70 to achieve longer warranty terms:

10 year 2 coats @ 1.25 gallons per 100 sq. ft. 20 DMT.  
15 year 3 coats @ 1.5 gallons per 100 sq. ft. 36 DMT.  
20 year 4 coats @ 1.25 gallons per 100 sq. ft. 40 DMT.

**Note:** Airless spray is the preferred method of application. A medium to heavy nap roller may be used for application over flat substrates. Brush or roller may be used for touch-up or detail work or for small areas that are not practical for spray application.

**Quality Control:** Upon completion of the roof coating, the Applicator shall make a final inspection to determine the dry film thickness of the fluid applied membrane and to verify that the coating meets the Manufacturer's requirements for warranty. As a condition of the project's completion and acceptance, deliver to the Owner a copy of the fully executed, specified warranty from the Coating Manufacturer, following individual warranty guidelines.

**Disclaimer:** This General Coatings Specification is for general application use. A pre-inspection for Coatings Warranties, prior to the application of Polyglass products, may be required. Consult your Polyglass Sales Representative for details.