



# KM Acrylic Coatings Specifications

## Liquid Applied Roof Coating for Metal Roofing Substrates

### Acryl 25 Labor and Material Limited Coating Warranty (5, 10, or 15 Year options)

#### Part 1 – General:

**Qualifications of Contractor:** The Contractor shall be a registered applicator for KM COATINGS 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:

KM RI Rust Inhibitor Primer.

KM ACRYL 25 Premium, elastomeric water-based reflective roof coating.

KM BRUSH-IT Water-based elastomeric mastic.

KM 1217 SEBS Flashing Cement

KM 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.

**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. All mechanical fasteners shall be checked for integrity. Retighten or replace as necessary. "Stripped out" fasteners shall be



replaced using a larger diameter fastener. Unsound rust shall be wire brushed, sandblasted or mechanically abraded to remove all loose rust. Metal panels deteriorated to the point that their structural integrity is compromised shall be replaced. Remove excessive amounts of asphaltic-based or other deteriorated patching/flushing materials if present. Check all seams to ensure that they are tight and flush. Excessive gaps or deflections between panels shall be eliminated by installing additional screws or rivets as necessary to restrict deflection to ¼" (6 mm) or less. All metal surfaces, whether new or existing, shall be cleaned using water under high pressure (minimum 2,500 psi) to remove contaminants, along with any existing loose paint or coating. Heavy deposits of dirt or contamination may require agitation with a stiff-bristle broom or other mechanical scrubber. Allow the roof to dry thoroughly. All existing "sound" rusted areas shall be primed with KM RI Rust Inhibitor Primer at the approximate rate of 100 s.f. per gallon. Medium to heavy rust areas must be coated at least twice.

Fill gaps between ¼" and ½" at panel seams, joints and protrusion with KM BRUSH-IT elastomeric mastic. Fill gaps larger than ½" using polyethylene backer rod or spray applied polyurethane foam. All horizontal (end-lap) seams and vertical (side-lap) seams that have not been factory crimped or pre-sealed, roof terminations and flashings, around drains, scuppers and skylights, and base of all vents, conduits, HVAC equipment and other protrusions shall be reinforced using one or more of the following methods; (a.) Apply base coat of acrylic elastomer liberally, using brush or roller, along the area to be detailed. While elastomer is still wet, embed a strip of 6" or 12" polyester mesh as per detail requirements, centered over the seam, joint or interface. Work the mesh into the elastomer applying additional material as necessary to totally encapsulate the reinforcing fabric. (b.) Apply KM BRUSH-IT elastomeric mastic at a thickness of 60 to 80 dry mils over the detail area. Extend the sealant a minimum of 2" on either side of seams, joints and interfaces. Sealant must be applied in 2 coats. (c.) Apply KM 1217 SEBS Flashing Cement at a rate of 1.5 gallons per 100 sq. ft., 24 wet mils (.6 l/m<sup>2</sup>). Extend the sealant a minimum of 2" on either side of seams, joints and interfaces. Once dry, a second coat must be applied at the same rate as the first.

At the interface of any metal with a dissimilar material, detail the joint using one of the following methods: Apply 6" Polyester Mesh embedded into the base coat of acrylic elastomer as previously described in the previous section. Apply KM BRUSH-IT elastomeric mastic or KM 1217 as previously described. All mechanical fastener heads shall be treated by applying KM BRUSH-IT elastomeric mastic to completely encapsulate the screw head and seal the base of the fastener to the metal deck.

**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 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:** All existing "sound" rusted areas shall be primed with KM RI Rust Inhibitor Primer at the approximate rate of 200 s.f. per gallon (0.81l/m<sup>2</sup>). Medium to heavy rust areas must be coated at least twice.

**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 base coat of KM ACRYL 25 at a minimum rate of 1.00 gallons per 100 sq. ft., 16 wet mils (0.4 l/m<sup>2</sup>). After allowing the base coat to dry, apply one (1) coat of KM ACRYL 25 at a minimum rate of 1.00 gallons per 100 sq. ft., 16 wet mils (0.4 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.

Apply additional coats of KM ACRYL 25 to achieve longer warranty terms:

10 year 2 coats @ 1.25 gallons per 100 sq. ft. 20 DMT.  
15 year 3 coats @ 1.25 gallons per 100 sq. ft. 30 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 KM COATINGS products, may be required. Consult your KM COATINGS Sales Representative for details.**