



KM Silicone Coatings Specifications

Liquid Applied Roof Coating for Metal Roofing Substrates

KM PS #250 Labor and Material Limited Coating Warranty (10, 15 or 20 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. 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 D6694. 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. 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 Warranty

Part 2 – Products:

KM Water Based Epoxy Primer
KM PS 250 High Solids Silicone
KM 40/40 FIBERS
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.

Part 3 – Execution:

Surface Inspection: 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. Roofs should have positive drainage.

Note: KM silicone coatings are not affected by ponding water. However, the NRCA (National Roofing Contractors Association.) considers ponding water undesirable and recommends that all roof assemblies have positive drainage. KM COATINGS recommends adherence to the NRCA guidelines.

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.

KM COATINGS recommends determining moisture content of existing substrate, insulation and deck. If excessive moisture is found, work shall not proceed until the cause of moisture 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. 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/flashing 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 clean 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.

Prime: All surfaces shall be primed with KM water based epoxy primer at a minimum rate of 200 square feet per gallon. Color: Gray. If primer is left exposed for over 36 hours, re-prime the roof's surface.

Flashing and Repairs: Fill gaps between ¼" and ½" at panel seams, joints and protrusion with KM PS #250 modified with KM 40/40 FIBERS. 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 with KM Polyester Fabric and silicone roof coating or silicone roof coating modified KM 40/40 FIBERS. KM Polyester Fabric must be coated with base coat material each day of application. Minimum width of fabric over seam shall be six (6) inches. Apply KM PS #250 modified with KM 40/40 FIBERS 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. KM 40/40 FIBERS Sealant must be applied in 2 coats.

At the interface of any metal with a dissimilar material, detail the joint as previously described in the previous section.

All mechanical fastener heads shall be treated by applying KM PS #250 modified with KM 40/40 FIBERS 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 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.

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:

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.

After allowing all details and reinforcing to dry, apply one (1) coat KM PS #250 at a minimum rate of one 1.5 gallons per 100 sq. ft., 24 wet mils (0.6 l/m²) Use a medium-nap roller or airless spray to apply the elastomeric coating.

Total dry mil thickness (DMT) to be a minimum of 22 mils for a 10 year warranty.

Apply additional coats of KM PS #250 to achieve longer warranty terms:

15 year 2 coats @ 1.0 gallons per 100 sq. ft. 30 DMT.
20 year 2 coats @ 1.25 gallons per 100 sq. ft. 38 DMT.

If applied in multiple coats, consecutive coats should be applied in a perpendicular direction to the previous coat of silicone and must be done within 24 hours of said 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 prior to the application of KM COATINGS products, may be required. Consult your KM COATINGS Sales Representative for details.

