



07 55 53 Elastomeric Protected Membrane Roofing
07 55 56 Fluid-Applied Protected Membrane Roofing

Restoration Coating System™ (RCS)
Over Metal Roof

PART 1 - GENERAL

1.1 SUMMARY

- A. This specification covers the preparation and application to metal roof surfaces of a monolithic, spray-applied elastomeric acrylic coating system, for the purpose of preserving and leak proofing the existing metal roof system.
- B. The applicator shall furnish all labor, materials, and equipment and perform all operations required as specified.
- C. Manufacturer, suppliers and contractors shall be unencumbered with serious litigation and/or bankruptcy. Payments are to coincide with material and labor lien releases.

1.2 SUBMITTALS

ACTION SUBMITTALS / INFORMATIONAL SUBMITTALS

- A. **SHOP DRAWING** : Submit a roof plan showing the layout of joint reinforcing and all flashing details.
- B. **MANUFACTURER'S DATA**: Submit technical datasheets, independent testing reports, application instructions and precautions.
- C. **QUALIFICATIONS**: The applicator of the roof coating material shall be an approved applicator (designated by LaPolla). Proof of certification shall be provided in written form from the LaPolla.
- D. **PRIOR APPROVAL**: Materials other than that specified shall be submitted to the Architect/owner for approval no later than ten days prior to bid date. In requesting prior approval, it shall be necessary to submit:





1. A letter of certification signed by a manufacturer's representative, stating that the substitute material is equal to or better in features or performance than the specified product will provide.
2. Independent Laboratory test data displaying physical property values.
3. A 4" X 4" coated block sample.

1.3 QUALITY ASSURANCE

- A. All roofing contractors and subcontractors bidding work shall be licensed by the State Contractors License Board, and shall have a license currently in effect, which covers work called for in the specifications (where applicable).
- B. Qualified Applicators: Bidding and application shall be made only by contractors who are currently qualified by the fluid applied material manufacturer for warranty projects. The contractor shall furnish to the owner a letter confirming that the contractor is an approved applicator for the materials manufacturer.
- C. The contractor shall have a minimum of three years experience in applying acrylic roof coatings and should be able to document, if requested, at least 500,000 square feet of successful applications using similar roofing materials as that specified.
- D. An approved applicator shall be on site during all applications of LaPollla products.
- E. The building owner/architect shall reserve the right to accept the bid of their choice, which may not necessarily be the low bidder. The building owner/architect shall also reserve the right to reject any and all bids.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original sealed containers, with seals and labels intact.
- B. Store materials in an enclosed space protected from weather and out of the direct rays of the sun. Store where temperatures will not be less than 50°F or more than 100°F.
- C. Support stored material containers on pallets and cover with breathable tarpaulin.
- C. Protect from freezing during shipping and storage.
- D. All materials shall be stored in compliance with local safety requirements.





1.5 SITE CONDITIONS

- A. All materials to be installed in strict accordance with all published safety, weather, or applicable regulations of the manufacturer and/or local, state, and/or federal agencies which have jurisdiction.
- B. Do not apply materials at temperatures below 50°F, when wind velocities exceed 12 mph, or when there is a possibility of temperatures falling below 32°F within a 24 hour period. Do not apply if weather conditions will not permit complete cure before rain, dew, fog, or freezing temperatures.

1.6 SAFETY REQUIREMENTS

- A. All personnel spraying coating materials in exterior applications must wear acceptable organic respirators or other protective equipment to ensure good safety precautions at all times. Contractor shall perform all work in accordance with OSHA regulations and safety regulations governing the location of the jobsite.
- B. Proper disposal of waste materials and containers must be done in compliance with federal, state, and local regulatory agencies.

PART 2 - PRODUCTS

2.1 OWNER-SUPPLIED PRODUCTS

- A. Provide 100% Acrylic Restoration Coating System RCS 5000 by Lapolla Industries, Inc. 15402 Vantage Parkway East St. 322 Houston, TX 77032 Telephone 281.219.4100 Fax 281.219.4106
- B. Provide RCS 30 Restoration Coating System (RCS) primer by Lapolla Industries, Inc. 15402 Vantage Parkway East St. 322 Houston, TX 77032 Telephone 281.219.4100 Fax 281.219.4106





2.2 PRIMER

A. Shall be RCS 30 DTM , a water-based, acrylic emulsion primer for use on Steel, Aluminum and galvanize surfaces to enhance adhesion of coatings.

2.3 SEAM TAPE

A. Tape shall be a self-adhesive butyl or polyester fabric for use on sloped and vertical surfaces.

2.4 COATING

A. RCS 5000 is a technologically advanced, high solids, thixotropic, acrylic elastomeric coating uniquely formulated to withstand the intense heat and ultra-violet rays.

B. Elastomeric roof coatings shall contain no migratory plasticizers, vegetable oils, marine oils or cementitious materials. Use of non-elastomeric resins is not permitted.

C. The coating materials shall meet the following minimum physical properties:

RCS 5000 Acrylic Elastomeric Roof Coating

Properties	Test Method/Requirements	Value
Standard Colors:		STANDARD COLORS: TF 5001 – WHITE TF 5002 – GRAY TF 5003 – TAN
Tensile Strength:	ASTM D2370	300psi (±25)
Elongation:	ASTM D2370	260% (±25)
Adhesion:	ASTM C794-D 903	7.0 psf PUF(dry) 3.6 psf PUF(wet) 1.4 psf Galv. Steel (dry)



		3.0 plf Galv. Steel (wet)
Hardness (Shore A):	ASTM D2240	62 (±2)
Permeability:	ASTM D1653A	11 U.S. Perms @ 20mils
Tear Resistance:	ASTM D624	85 lbs/in. (±2)
Solids by Weight:	ASTM D1644	67% (±3)
Solids by Volume:	ASTM D 2697	55% (±3)
Weight per Gallon:		11.95 (± .2)
Theoretical Coverage:	13-14 dry mills	1.5 gallons
Viscosity (cps):	ASTM D 562	110 K.U. (±8)
Reflectivity:		NEW: 85% AGED: 78%
Emmissivity		.89
Dry to Touch:		4 hours
Tack Free:		12 hours
Recoat Window:		12 hours
Shelf Life:	When properly stored	6 months





SUBSTITUTIONS

- A. No substitutions allowed.

PART 3 - EXECUTION

3.1 PREPARATION OF SURFACES

A. Metal - New Ferrous and Non-Ferrous:

1. Metal surfaces to be coated shall be clean, dry, sound, and free of dirt, rust, grease, oil, and any other contaminants that might interfere with the adhesion of the elastomeric coating.
2. All oils shall be cleaned from metal surfaces by either: (a) power washing followed by a thorough water rinse and allowed to dry or, (b) solvent cleaning using a brush applied solvent followed by immediate wipe down with clean rags.
3. All metal sections shall be securely fastened and closed by mechanical fasteners.
4. All joints, mechanical fasteners, openings and termination points shall be sealed with a self-adhesive butyl or standard polyester roofing fabric or caulk.
5. Openings, roof terminations, vents, stacks, HVAC equipment shall be flashed with a butyl fabric-reinforced tape or standard polyester roofing fabric prior to full basecoat application of RCS elastomeric coating.

B. Metal - Weathered or Rusted Ferrous and Non-Ferrous:

1. Metal surfaces to be coated must be clean, dry, and free of dirt, rust, grease, oil, and other contaminants that might interfere with the adhesion of the elastomeric coating.
2. All metal surfaces must be power washed and allowed to dry.
3. Existing rusted areas shall be wire brushed to remove loose rust and spot primed with RCS 30 primer. All sections with corrosion to the point of weakness or breaking must be replaced.
4. All metal sections shall be securely fastened and closed by mechanical fasteners.
5. Openings, roof terminations, vents, stacks, and HVAC equipment shall be flashed with a butyl fabric reinforced tape or standard roofing polyester fabric and pre-coated with RCS 5000 acrylic coating prior to full basecoat application of RCS 5000 coating.





3.2 APPLICATION

1. **Unpainted Metal of Surface Rusted Metal:** remove all scale and apply RCS 30 DTM Acrylic Primer at a rate of $\frac{1}{4}$ to $\frac{1}{2}$ gallons per 100 square feet.
2. **Base coat and Fabric components:** Consist of one coat of RCS 5000 applied to the substrate, reinforcing fabric (size vary) laid into the wet base coat and brushed or rolled in allowing full saturation of the fabric and finally a second coat of the base coat saturating the fabric from the top. Ensure adjacent runs of fabric are overlapped a minimum of four inches (4")
 - A. These recommendations are for minimum material usage applied under ideal circumstances. The actual number of gallons needed per square may need to be increased. Wind conditions while spraying, surface texture, and uneven application can affect the number of gallons required.
 - B. These recommendations assume that the deck has no deterioration and is in good, sound condition.
 - C. Puddles of heavy coating on the roof are not acceptable.
 - D. Apply six inches of butyl fabric-reinforced tape or standard roofing polyester fabric to all vertical seams and at least a six-inch width of butyl tape or polyester fabric to all butt seams. Cover all fasteners with fabric fastener covers or caulk.
 - E. Apply the recommended primer to all metal surfaces at the rate of one gallon per 400 square feet. Allow to dry.
 - F. Pre-coat all seams/fasteners with RCS 5000 gray base coat at $1\frac{1}{2}$ gallons per 100 square feet. Allow to cure.





- G. The entire roof shall receive the consisting of three gallons of RCS acrylic coating per 100 square feet, applied evenly in two separate coats. Verify all seams are back rolled during both applications to ensure good coverage of all seam tape.
- H. The first coat shall be sprayed at the rate of 1.5 gallons per square of RCS 5000 grey base coat.
- I. After thorough drying of the first coat the second coat shall be applied using a crosshatch technique. Apply RCS 5000 white topcoat at the rate of 1½ gallons per square. All coating edges shall be cut in evenly in a uniform manner to provide an aesthetically pleasing appearance.
- J. Newly installed coating system shall yield an average of 24 dry mils.

3.3 CLEANING

- A. At the end of each work day, remove rubbish, empty containers, rags, and other discarded items from the site. After completing work, clean glass and spattered surfaces. Remove spattered coatings by washing, scraping, or other methods, being careful not to scratch or damage adjacent finished surfaces.

END OF SECTION

