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

Restoration Coating System™ (RCS) over Cap Sheet

PART 1 - GENERAL

1.1 SUMMARY

A. This specification covers the preparation and application to Cap Sheet surfaces of a monolithic, spray-applied elastomeric acrylic coating system, for the purpose of preserving and leak proofing the existing 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. MANUFACTURER'S DATA: Submit technical data sheets, independent testing reports, application instructions and precautions.

B. 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 an officer of the manufacturer, stating that the substitute material is equal to or better in features or performance, which the job requires, than the specified product will provide.
   2. Independent Laboratory test data giving physical property values.
   3. A coated 12" X 12"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. 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. 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 50ºF, when wind velocities exceed 12 mph, or when there is a possibility of temperatures falling below 32ºF within a 24 hour period. Do not apply if weather conditions will not permit complete cure before rain, dew, fog, or freezing temperatures.

C. Do not apply coating when the substrate temperature falls below 50°F.

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.

C. Contractor shall perform all work in accordance with OSHA regulations and safety regulations governing the location of the jobsite.

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 4000 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 4000, a water-based, acrylic emulsion primer for use on PVC surfaces to enhance adhesion of coatings and to stop plasticizer migration into coatings, as distributed by Lapolla.

2.3 SEAM TAPE

A. Tape shall be a self-adhesive butyl fabric-reinforced tape 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
Viscocity (cps):	ASTM D 562	110 K.U. (±8)
Reflectivity:		NEW: 85% AGED: 78%
Emmisivity		.89
Dry to Touch:		4 hours
Tack Free:		12 hours
Recoat Window:		12 hours
Shelf Life:	When properly stored	6 months

2.5 SUBSTITUTIONS

A. Fluid applied waterproofing materials such as cementitious coatings, asphaltic coatings, hypalons, and butyls are not acceptable substitutes for materials specified herein.

PART 3 - EXECUTION

3.1 PREPARATION OF SURFACE

A. Areas to receive the sprayed elastomeric coating shall be securely fastened to the building structure.

B. Remove any contaminants that will interfere with total adhesions of the coating system to the substrate.

C. The entire surfaces shall be cleaned and pressure washed to remove all contaminants.

D. All loose seams of existing roof system shall be sealed in accordance with the Cap Sheet manufacturer's recommendations. Then seal all Cap Sheet seams with butyl tape.

E. All HVAC ductwork is to be primed with RCS 4000 primer. Seal all joints with butyl tape.

F. Allow coating to dry thoroughly.

3.2 APPLICATION

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 three to four inches of butyl, fabric-reinforced tape to all vertical seams and six inches of tape to all butt seams. Cover all fasteners with fastener covers or caulk.

E. Prime all existing cap sheet surfaces with RCS 4000 primer at the rate of one gallon per 400 square feet.

F. Pre-coat all seams/fasteners with RCS 5000 gray base coat with 1.5 gallons per 100 square feet. Allow to dry.

G. The entire roof shall receive the RCS 5000 consisting of three gallons of RCS 5000 acrylic coating per square. Apply evenly in two separate coats.

H. The first coat shall be sprayed at the rate of 1.5 gallons per 100 square feet of RCS 5000 gray base coat. Back roll the initial 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