



FLUID APPLIED ROOF COATING SYSTEM

SPECIFICATION NO. CTG-3-1-A

ALUMINUM REFLECTIVE COATING SYSTEM SMOOTH SURFACE (New or Upgrade) – ALUMINUM SURFACE

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

- 1.1.1 American Society for Testing and Materials Publication (ASTM)
- 1.1.2 Underwriters Laboratories Inc. (U.L.)
- 1.1.3 Western Colloid Details, Drawings and Notes

1.2 QUALITY CONTROL

1.2.1 Pre-Roofing Conference: Prior to starting the application of the roofing system, there will be a pre-roofing conference with the owner's representative to assure a clear understanding of the specifications. The conference shall be attended by the Contractor(s) and the Membrane Manufacturer's representative.

1.2.2 Warranty: The contractor shall warrant for 2 years, from the date of completion, that the coating system is free of defective materials and workmanship. Repairs that become necessity because of defective materials and/or workmanship while this roofing is under warranty shall be performed by the contractor. Any additional warrantees shall be provided by the contractor to the owner.

1.2.3 Manufacturer shall certify that materials submitted have been used in like application and that they have been actively engaged in the manufacture of these materials for a minimum period of 15 years prior to submittals, as required. The manufacturer shall certify that the contractor is authorized and approved for the application of their materials.

1.3 SUBMITTALS:

1.3.1 Descriptive literature: Submit manufacturer's application instructions and technical data sheets or catalog cuts on materials.

1.4 DELIVERY, STORAGE AND HANDLING:

1.4.1 Storage: Prior to and during project, protect all materials from inclement weather conditions. Keep lids tightly closed on all containers when not in use. Locate materials temporarily stored on the roof in approved areas and distribute the load to stay within the live load limits of the roof construction.

1.4.2 Handling: Select and operate materials handling equipment so as not to damage existing construction and applied roofing. Handle roll materials in a manner to prevent damage to edges and ends.

1.5 ENVIRONMENTAL CONDITIONS: This Fluid Applied Reinforced Roof System is water based and should be applied when weather conditions permit proper application and drying. Application will not be permitted during inclement weather (wet, rain, snow, freeze). The temperature during application shall be a minimum of 55 degrees Fahrenheit (F) and rising. Do not attempt application when rain, inclement weather or temperatures below 40 degrees F are expected within 48 hours after application. The system should not be applied if there is ice or frost on the roof surface/deck. The preparation and repair portion of the system that does not include water based materials may be applied immediately prior to inclement weather if necessary.

1.6. PROTECTION OF PROPERTY:

1.6.1 Protective Coverings: Contractor shall take proper precautions to protect owners property against damage and overspray. The use of shield boards, maskings and protective coverings shall be used as necessary. Western Colloid Products is not responsible for damages caused by the overspray of any of its products.

SYSTEM COMPONENTS AND WEIGHTS

<u>No.</u>	<u>Component</u>	<u>Amount</u>	<u>Dry Weight Lb.**</u>
1	Primer/Base Coat #298 Emulsion	3 Gallons	12.
2	Reflective Surface Coating - SilverWhite Aluminum	1.5 Gallons	4.5
Total System Dry Weight			16.5
Total System Dry Mills (approximate)		29	

** weight approximate (per 100 sq. ft.)

PART 2 - PRODUCTS

2.1 DESCRIPTION OF ROOF SYSTEMS:

2.1.1 This specified assembly is a cold process method to apply a reflective aluminum surface to existing or new smooth surface roofing. The system is water based and environmentally friendly. It has very low odor. It is intended to extend the life of applicable existing or new roof membranes. This system will prolong the serviceable life of existing roof membranes which reduces land fill usage. The system is surfaced with a highly reflective elastomeric coating. This type of reflective surface has proven to reduce temperatures and save energy on many types of commercial structures.

2.2 MATERIALS: Shall conform to the respective specifications and to the requirements herein.

2.2.1 Polyester Fabric: Shall be Western Colloid's 2.75 ounce firm or 3.0 ounce soft, stitchbonded polyester fabric used as a reinforcing fabric in asphalt emulsion.

2.2.2 SBS Fiber Glass Base Sheet: Shall be minimum 25 lb., SBS asphalt coated, G-2 type base sheet conforming to ASTM D 4601-95.

2.2.3 SBS Modified Bitumen Cap Sheet: Shall be minimum 4mm., granule surfaced, SBS modified with fiberglass and or polyester reinforcement(s).

2.2.4 Asphalt Flashing Compound: Asbestos free, cut back roof mastic reinforced with non asbestos fibers. ASTM D 4586-86 Type 1.

2.2.5 Modified Asphalt Flashing Compound: Asbestos free, cut back roof mastic reinforced with non asbestos fibers. Modified to form a permanently rubberized compound.

2.2.6 Elastic Cement #800: Elastomeric Flashing & Sealing Compound: A water base, highly concentrated acrylic resinous plastic emulsion with inert mineral pigments and fillers as manufactured by Western Colloid S.C., Inc.. For application to all exposed terminations, metal joints and any areas needing a tough, highly flexible sealing compound. Available in white or black.

2.2.7 #298 Asphalt Emulsion: A premium clay stabilized asphalt emulsion ASTM D 1227 Type III as manufactured by Western Colloid S.C., Inc.. Produced in a continuous colloid mill process without any added surfactants or additives. Also known as Glas-Shield Waterproofing Compound for cold process roofing.

2.2.8 SilverWhite #525: A specially formulated aluminum asphaltic emulsion for use as a protective coating where a high degree of reflectivity and weatherproofing is desired. SilverWhite is a unique formula that is manufactured from #298 Emulsion, special resins, the highest quality ingredients and polished aluminum flake. Manufactured by Western Colloid.

** Refer to current Technical bulletins for complete product data and proper application methods.

** Refer to MSDS for proper handling procedures.

PART 3 - EXECUTION

3.1 PREPARATION:

3.1.1 New BUR roofing membrane shall be installed per the manufacturers specifications and recommendations. All flashings and details shall be completed prior to the application of the coating system.

or (for upgrade follow 3.1.1 through 3.1.5):

3.1.1 Roof membrane shall be repaired and made sound and watertight prior to application of coating system.

3.1.2 Remove all loose gravel, dirt, dust and foreign debris by vacuum, washing, sweeping or power blower. The entire surface shall be properly cleaned so as to receive proper attachment of the new fluid applied membrane. Areas of light dirt and dust may require only sweeping or power blowing. Areas of heavier dirt, dried mud or contamination may require washing. Use strongest cleaning method necessary to achieve best results.

3.1.3 Valleys and ponding areas shall be washed and may require priming so as to receive a positive attachment of the system. If priming is necessary to any area, use #298 Asphalt Emulsion diluted 20 to 30 percent with water as primer. Apply vigorously with brush and allow to dry.

3.1.4 All blisters and splits are to be repaired using the "floating patch" (or other approved) method with asphalt flashing compound and modified base or cap sheet. Remove blisters with flat shovel, scraper or knife. Embed modified base or cap sheet in application of asphalt flashing compound. Apply pressure to smooth and achieve complete contact of sheet and flashing compound. Edges of sheet shall extend at least 6 inches beyond widest point of blister or split being repaired. Apply asphalt flashing compound to seal edge of sheet.

3.1.5 Repair and dress roof area as needed with special attention to penetrations, pipes, terminations and flashings.

Apply #800 Elastic Cement to all pipe flashings, cones, exposed metal joints and flanges using brush or trowel.

Small splits and irregularities are to be repaired using a three course method with #800 Elastic Cement. To the area needing repair apply #800 at a rate of 5 gallons per 100 sq. ft.(aprox. 1/8 in. thick). Into the wet #800 embed 1 ply of polyester fabric. Brush the fabric into the #800 to insure full saturation having no wrinkles or voids. Over the fabric apply another coat of #800 at a rate of 4 gal. per 100 sq.ft.. Allow to dry.

3.2 APPLICATION

3.2.1 Primer/Base Coat. Over the properly prepared surface, apply a coat of #298 Asphalt Emulsion at a rate of 3 gallons per 100 sq.ft.. Allow to cure.

3.2.2 Reflective Coating - SilverWhite #525: After roof has cured, apply reflective coating. To prevent damage to the membrane, the reflective coating should be applied early in the day prior to the heating and softening of the emulsion surface. If surface becomes soft and sticks to equipment or feet, discontinue application. Wash roof surface to remove any asphaltic residue that may cause lack of adhesion or "tobacco staining". Apply over the entire roof surface, SilverWhite #525 aluminum reflective roof coating at a rate of 1½ gallon per 100 sq. ft.. For best results, spray apply. (For roller or brush touch-up, use SilverWhite #530.)

3.2.3 Cleanup: Each day, remove from the job site, debris, scraps, containers and any rubbish resulting from the installation of the roofing system.