



FLUID APPLIED ROOF COATING SYSTEM

SPECIFICATION NO. CTG-3-1.5A

**ALUMINUM REFLECTIVE COATING SYSTEM
CAP SHEET or SMOOTH SURFACE – 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. The latest publication of this specification shall be enforced. Refer to the latest publication of this specification via the manufacturer's web site or by contacting the manufacturer.

- 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 roofing system is free of defective materials and workmanship. Repairs that become necessary because of defective materials and/or workmanship while this roofing is under warranty shall be performed by the contractor. The contractor is responsible for inspection of the installed system 1 to 6 months prior to 2 years from the date of completion. Contractor shall report any deficiencies to the manufacturer and make any repairs necessary. Any additional warranties 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 20 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 BUR or Mod. Bit. 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 reflective elastomeric aluminum 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. To be used as a reinforcing fabric in asphalt emulsion, acrylic coating and flashing materials. Available in various widths.

2.2.2 All Weather Elastic Cement #8000 : A solvent-based, white sealant. #8000 is designed for use on various roof membranes and surfaces, including asphalt BUR, modified bitumen, metal and single ply roofs. (Including EPDM, PVC, TPO and Hypalon). Used where wet conditions are present during repair and also to set metal flanges and sheets where water based sealant is not practical. #8000 may be used in place of #800 Elastic Cement when a more immediate resistance to water is required.

2.2.3 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. For application to all exposed terminations, metal joints, drain sumps and any areas needing a tough, highly flexible sealing compound. Available in white or black.

2.2.4 #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.

2.2.5 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 Roof membrane shall be repaired and made sound and watertight prior to application of coating system. Be sure the existing membrane is properly fastened and or adhered per code requirements.

3.1.2 Remove all loose gravel, dirt, dust and foreign debris by vacuum, sweeping or power blower. The entire roof surface shall be washed to insure a positive attachment of the system paying special attention to valleys and ponding areas.

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

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.

3.2.5 Pipe Flashings & Penetrations – Surface Treatment: Prior to the application of the base coat and before the reflective coating, apply #800 Elastic Cement and Polyester Fabric in a three course method to all pipe flashings, cones, exposed metal joints and flanges. Also apply #800 Elastic Cement to all corners at curbs and skylight flashings or any area that has been previously repaired with roofing mastic.

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 Drains & Special Areas of Ponding: Areas around drains and scuppers shall receive an extra application of SilverWhite #525 aluminum reflective roof coating. In addition valleys, waterways and any locations where water ponds for more than 48 hours shall receive an extra application of SilverWhite #525 aluminum reflective roof coating. The extra application is to extend 12 inches beyond the ponding area or as needed to extend beyond the drain sump. To this area apply the SilverWhite #525 at a rate of 1½ gallon per 100 sq. ft... This application shall be applied after the roof membrane and prior to the final coating SilverWhite #525.

3.2.13 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 gallons per 100 sq. ft.. For best results, spray apply. (For roller or brush touch-up, use SilverWhite #530.)

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