



# WESTERN COOL ROOF SYSTEMS

## FLUID APPLIED REINFORCED ROOFING

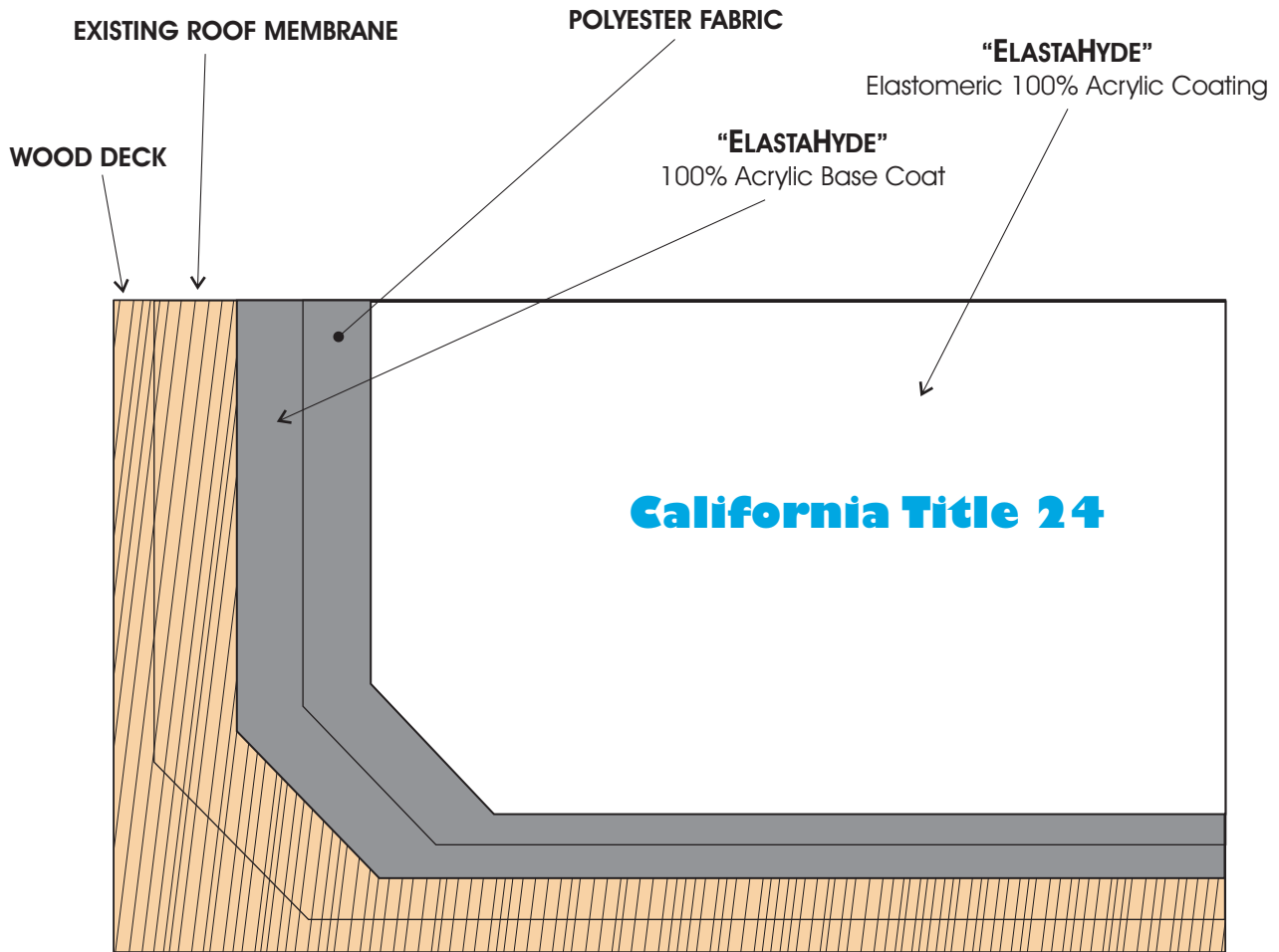
### Long Life

### Recover Maintenance System

**1 PLY  
POLYESTER REINFORCED  
ALL ACRYLIC  
MEMBRANE**

**SMAA-1P-6xE**

(Existing Membrane)  
(Combustible Deck)



System Dry Weight = 45.0 lb.\*\*  
System Dry Mils = 65\*\*  
\*\*Approximate

- ◆ Water Based - No Fumes - No Flames
- ◆ No Tear-Off of Existing Membrane
- ◆ Tough - Flexible - Strong
- ◆ Very Light Weight - Seamless
- ◆ Energy Efficient Reflective Surface
- ◆ Tax Benefits
- ◆ Renewable





**“WESTERN COOL ROOF SYSTEMS”**

***Sustainable - Energy Efficient***

**FLUID APPLIED REINFORCED ROOF SYSTEM**

**SPECIFICATION NO. SMAA-1P-6xE**

UPGRADE SMOOTH SURFACE / CAP SHEET

1 PLY POLYESTER REINFORCED – ACRYLIC SURFACE

All Acrylic

**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 Factory Mutual (FM Global)
- 1.1.4 Western Colloid Details, Drawings and Notes
- 1.1.5 ENERGY STAR<sup>®</sup> guidelines for energy efficiency (Roof Coatings)
- 1.1.6 CRRC – Cool Roof Rating Council
- 1.1.7 California Building Standards Code - Title 24
- 1.1.8 LEED (USGBC)

**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 of the re-roofing, 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. 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 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	Base Coat ElastaHyde	3. Gallons	21.
2	Polyester Fabric	1 Ply	2.5
3	Top Coat ElastaHyde	1.5 Gallons	10.5
4	Reflective Surface Coating - ElastaHyde White Acrylic	1.5 Gallons	10.5
Total System Dry Weight			44.5
Total System Dry Mils (approximate)		65	

\*\* weight approximate

## PART 2 - PRODUCTS

### 2.1 DESCRIPTION OF ROOF SYSTEM:

**2.1.1 Sustainable, Energy Efficient:** This specified assembly is a cold process method to upgrade existing roofing. The system is water based and environmentally friendly. It has very low odor. It is reinforced with tough, light weight polyester fabrics. It is intended to significantly extend the life of applicable existing roof membranes. This system eliminates or indefinitely delays the need to remove 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 significantly reduce temperatures and save energy on many types of commercial structures.

This specified assembly meets the following criteria:

- a. U.L. Class A
- b. Factory Mutual Standard 4470 Class 1
- c. California Title 24
- d. LEED (USGBC)
- e. Energy Star

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

**2.2.3 Modified Asphalt Flashing Compound:** (For Repairs) Asbestos free, cut back roof mastic reinforced with non asbestos fibers. Modified to form a permanently rubberized compound.

**2.2.4 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 and any areas needing a tough, highly flexible sealing compound. Available in white or black.

**2.2.5 #298E Elastomeric Asphalt Emulsion:** A premium clay stabilized asphalt emulsion ASTM D 1227 Type III modified with an acrylic rubber to achieve a permanently elastomeric waterproofing compound. As manufactured by Western Colloid.

**2.2.6 ElastaHyde #720 ARC:** Meets and exceeds ASTM D6083-97a for 100% acrylic roof coating. A premium, elastomeric acrylic, white reflective coating. ElastaHyde is manufactured from premium resins, pigments and components producing an acrylic coating of the highest quality. ElastaHyde is a durable coating that will resist rigorous weather conditions while protecting roof surfaces and contributing to substantial energy savings. ElastaHyde #720 ARC meets the requirements of a "Cool Roof" and is listed by the "Cool Roof Rating Council" (CRRC). As an ENERGY STAR® Partner, Western Colloid has determined that ElastaHyde #720 ARC meets the ENERGY STAR® guidelines for energy efficiency (white only). Manufactured by Western Colloid. (ElastaHyde can be produced in colors) (For application to smooth or non-granulated, asphalt, emulsion or modified bitumen surfaces and where there is ponding water use ElastaHyde #770 AXP)

**2.2.6 ElastaHyde #770 AXP:** High performance, 100% acrylic roof coating. A premium, elastomeric acrylic, white reflective coating. ElastaHyde #770 AXP is designed for smooth asphalt, modified bitumen and anywhere ponding or wet conditions exist. ElastaHyde is manufactured from premium resins, pigments and components producing an acrylic coating of the highest quality. ElastaHyde is a durable coating that will resist rigorous weather conditions while protecting roof surfaces and contributing to substantial energy savings... ElastaHyde #770 AXP meets the requirements of a "Cool Roof" and is listed by the "Cool Roof Rating Council". As an ENERGY STAR® Partner, Western Colloid has determined that ElastaHyde #770 AXP meets the ENERGY STAR® guidelines for energy efficiency (white only). 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.

**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** Repair and dress roof area as needed with special attention to penetrations, pipes, terminations and flashings. Areas around drains and ponding areas shall receive an extra ply of polyester fabric set in an application of ElastaHyde. The polyester shall extend at least 6 inches beyond the area that ponds.

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 Base and Wall Flashings:** Prior to the application of the membrane, install one ply of Polyester Fabric into a full coat of 3 gallons per 100 sq.ft.(per ply) of ElastaHyde achieving full saturation. Polyester ply shall extend over cant onto deck and continue up wall to terminate as necessary, under counter flashing, reglet or wall cap flashing.

**3.2.2 Edge Flashings:** Remove and replace gravel stops and metal edge where necessary. Where gravel stop is replaced, replace with low or no rise metal edge. Metal edge shall be nailed at 4" O.C.. Strip-in the metal with modified cap sheet set in modified flashing compound making sure to cover all nails. Leave at least 2" of metal bare at edge to insure positive attachment and seal of polyester fabric in ElastaHyde surfacing.

**3.2.3 Vent and Pipe Flashings:** If flange is removed and replaced or new flange is installed, set flange of metal "jack" in a bed of elastomeric plastic roof cement and attach with nails. Strip-in the metal with polyester fabric and ElastaHyde making sure to cover all nails. Apply #800 Elastic Cement to top of cone extending onto pipe and insure complete seal is achieved.

**3.2.4 Roof Drains:** Prior to the application of the roofing membrane, remove clamping ring, embed modified cap sheet in application of elastomeric flashing compound into the drain bowl and extending a minimum of 12" onto the deck. Apply pressure to smooth and achieve complete contact of base sheet and plastic cement. Then the roofing membrane system is to be installed up to and fitting snug around the drain. Then set clamping ring and strainer.

**3.2.5 Misc. Flashings:** Where sign anchors, equipment supports or other projections penetrate the roof membrane, seal with #800 Elastic Cement creating a "cone" shaped seal. Where large voids must be bridged use 1 ply of polyester fabric in the #800. Misc. flashings to be of #800 Elastic Cement and Polyester Fabric and to be constructed in a manner acceptable to the membrane manufacturer as necessary to meet the needs of each flashing detail.

Refer to Western Colloid detail drawings and notes for additional details and application information.

**3.2.6 Membrane:** Over the properly prepared surface, apply a coat of ElastaHyde at a rate of 3 gallons per 100 sq.ft.. Immediately following and starting at the low edge of the roof, embed a full width of polyester felt continuing up the roof with full width sheets. Lightly broom each ply of polyester felt to achieve full saturation having no wrinkles or voids. Polyester shall terminate 2 inches above cant. Do not walk on polyester fabric during application causing displacement of the ElastaHyde. Allow to cure.

**3.2.7 Reflective Coating - ElastaHyde:** After the acrylic membrane has thoroughly dried apply reflective coating. Apply over the entire roof surface, ElastaHyde elastomeric reflective roof coating at a rate of 3 gallons per 100 sq. ft.. The reflective coating shall be applied in a two coat application. This shall be done in a "cross hatch" manner (the second coat shall be at a right angle to the first). Each coat shall be ½ of the total application rate. Before application, mix well and strain if spray applying. Do not thin or dilute.

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