



TECHNICAL DATA

TUFFLEX II WALKING DECK SYSTEM

FIRE RETARDANT WALKING DECK & ROOF COVERING

ICC-ES EVALUATION REPORT ESR-2505
LOS ANGELES CITY APPROVAL – RR# 25567

1. MANUFACTURER

TUFFLEX POLYMERS
10880 Poplar Avenue
Fontana, California 92337
Phone: (909) 349-2016
Fax: (909) 823-6309

2. PRODUCT DESCRIPTION:

A. General: The TUFFLEX II Roof Covering and Walking Deck System consist of a multi layered coating system for exterior walking roof deck surfaces. The system is applied over plywood substrates which have a minimum ¼ inch per foot slope for water drainage. Components of the system consist of galvanized expanded metal lath secured to the deck. A polymer reinforced underlayment mix known as TUFFCRETE II is troweled over the metal lath. A layer of fiberglass matting is then bonded to the surface using TUFFLEX II Basecoat Resin. A texture coat of TUFFLEX II Texture Coat mixture is then applied followed by a pigmented sealer coat of TUFFLEX II Top Coat.

B. Preparation of Substrate: The Plywood substrates must be free of all contamination that would prevent proper installation of the system. The surface must be clean, dry, and free of any debris. Plywood must be minimum 5/8 inch thick exterior grade plywood having a maximum span of 16 inches between supports. All substrate joints shall be blocked with minimum 2 inch by 4 inch wood supports. Panel joint gaps to be a minimum 1/16 inch wide. Larger joints of panels to be covered with a 2 inch strip of galvanized sheet metal secured to the deck with coated staples or galvanized roof nails. All openings, parapets, walls, door and slider thresholds, post, scuppers and floor drains, fascia trim, stair tread and riser joints, must be properly flashed and caulked. Substrate to be sloped minimum ¼ inch per foot or as required by code.

Note: When installing over copper flashings, contact TUFFLEX Polymers (TUFFLEX) for technical assistance regarding additional preparation instructions.

3. APPLICATION:

A. Metal Lath: Minimum 2.5 lb per square yard galvanized expanded metal lath (diamond lath) must be laid out over the entire plywood substrate with lath joints butted together and overlapping all metal flashing a minimum 1-1/2 inches. The lath is stapled to the substrate using minimum 16 gauge, 5/8 inch long, galvanized coated staples. Staple pattern to be a minimum 20-25 staples per square foot and minimum 12 staples per lineal foot at all overlaps and flashing. Use gravel stop flashing at open ends of deck with a 5/16" rise. Hammer down all staples and lath seams protruding above lath elevation.

B. TUFFCRETE: The product is packaged in a two part pre-measured kit. Using a drill type power mixer, thoroughly blend the 50 pound bag of TUFFCRETE II dry mix with one gallon to 1-¼ gallons of TUFFCRETE II liquid polymer. The mixture is then troweled over the entire metal lath at a thickness covering all lath and staples,

resulting in a smooth even finish. The TUFFCRETE II mixture yields 22-25 square feet at this thickness. Additional TUFFCRETE II may be applied to improve sloping. Temperature range for application is a minimum of 55°F and maximum of 90°F. TUFFCRETE II should not be applied before or during rain or high humidity. The pot life is approximately one hour at 70°F and varies with temperatures and humidity. At 75°F, the TUFFCRETE II will dry within 12 to 24 hours, faster in direct sunlight and slower in shaded areas.

C. Fiberglass Membrane: The ¾ ounce rated, chopped strand fiberglass mat, is laid over the entire area, cutting to size and butting all seams. It is not necessary to overlap the fiberglass seams. It is not necessary to apply the fiberglass vertically when flashings are present. The fiberglass is then saturated with the TUFFLEX II Basecoat Resin, brush or roller applied, at the rate of 40-50 square feet per gallon. The Basecoat Resin is applied vertically to all flashing terminations and coving. Any wrinkles in the fiberglass should be razor cut while wet and brushed or rolled flat. The fiberglass strands should barely be visible for proper application and waterproofing integrity. Allow 2 to 46 hours drying time, depending on the weather.

D. Texture Coat: The product is packaged in a two part pre-measured kit. Using a drill type power mixer, thoroughly blend the 50 pound bag of TUFFLEX II white texture powder with 1 – 1 ¼ gallons of TUFFLEX II Liquid Polymer resin additive. The blended mixture is then spray applied using a hopper type gun adjusted to 20-30 P.S.I. at the rate of 100-150 square feet per kit. Apply in continuous solid application with no Base Coat showing. Prior to drying, use a wet trowel and lightly knock down the high spots in the texture. Allow to dry for 2 to 6 hours depending on the weather and whether or not in direct sunlight. Note: Various textures and custom designed patterns such as brick, tiles, and stone may be achieved.

E. Top Coat/Final Coat: Using a minimum ¾ inch nap roller or brush, apply one coat TUFFLEX II Final Coat Resin in two coats resulting in a net application of 100 square feet per gallon. During hot weather, do not apply in direct sunlight or on a hot deck surface. In hot climates, the Final Coat should be applied in the early morning or late afternoon only. Drying time is 2 to 4 hours depending on temperature and amount of direct sunlight.

F. Curing Times: After completion of the Final Coat and any required touch up work, light foot traffic may be allowed after 4 to 6 hours, depending on temperature and humidity. The final Coat may have a slight tacky feel to it for a few days. This is normal in high humidity and hot weather conditions. Potted plants and patio furniture should remain off the area for 96 hours after completion of the job.

G. Maintenance/Cleaning: The coating surface should be kept clean and free of greases, oils and corrosive material that has a potential to rust or release color. The surface is easily cleaned using water and a light detergent, scrubbing tough stains with a broom or brush with stiff bristles.

H. Method of Repair: If damage or excessive wear occurs, simple repairs using the above methods and products can be accomplished.

I. Available Colors: 20 standard colors. Custom Colors are available for a minimum batch size of 180 gallons per order. See the TUFFLEX Color Chart.

J. Packaging: Available as follows:

Metal lath: by the square foot in 3' x 8' sheets.

TUFFCRETE II: 2-part kit consisting of 50 lbs. of dry mix and 1 1/4 gallon of liquid polymer.

Fiberglass: In rolls by the square foot.

TUFFLEX II Basecoat Resin: in 1 gallon and 5 gallon pails.

TUFFLEX II Texture Coat: 2-part kit consisting of 50 lbs. of dry mix and 1 1/4 gallon of liquid resin.

TUFFLEX II Final Coat: 1 gallon and 5 gallon pails.

4. LIMITED WARRANTY:

TUFFLEX Polymers (TUFFLEX) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any TUFFLEX materials prove to contain manufacturing defects that substantially affect their performance, TUFFLEX will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by TUFFLEX with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. TUFFLEX specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of TUFFLEX's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the TUFFLEX material in question.

5. TECHNICAL ASSISTANCE:

TUFFLEX maintains a factory-based technical service department to consult on any project. Information on independent regional sales representatives or distributors which may be available in your area can be obtained by contacting our technical service department.

6. TECHNICAL DATA:

<i>PROPERTY</i>	<i>TYPICAL VALUE</i>	<i>TEST METHOD</i>
Weather Resistance	No Effect	ASTM G-23
Accelerated Aging	No Effect	ASTM D-756 ASTM C-297
Freeze – Thaw	No Effect	ASTM C-67
Abrasion Resistance	.004 loss @ 1000 cycles	N/A
Chemical Resistance	Unaffected	ASTM D-2299
Water Absorption	Meets Criteria	ASTM D-570
Class A Fire Retardant Roof over 5/8" Plywood	Meets all Criteria	UBC 32-7, UL 790, ASTM E-108, NFPA 256
One Hour Fire Resistance	Passed All	ASTM E-119 March 2000
LA City Approval Class A RR# 25567	Meets all Criteria	N/A

TUFFLEX II (14)