SECTION 07572{PRIVATE }
TRAFFIC-BEARING ROOF DECK SURFACING
Miracote MiraThane 500

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS

A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.02 WORK INCLUDED

A. Work of this Section includes all labor, materials, equipment and services necessary to complete the waterproof elastomeric traffic bearing roof deck surfacing as scheduled on the drawings and/or specified herein.

1.03 RELATED WORK

A. Concrete - Section 03300. **Concrete slab to be water cured or cured using sodium silicate curing compounds. Other types of curing compounds are generally not acceptable. Concrete to be cured a minimum of 28 days with a maximum moisture content of 7%. Light weight concrete topping slabs will not contain light weight aggregates of gypsum or vermiculite. Structural concrete and concrete topping to include expansion joints as required by prudent design. Minimum pitch of 1/8 inch per foot. On grade floors to be protected by vented functioning moisture vapor protection beneath slab**

B. Floor drains - Division 15. **Floor drains, clean-outs, etc. should be of the "floor-flange" type manufactured for use with composition floors by most major drain manufacturers. Drain flange shall be finished flush with substrate.**

C. Insulation: **(Consult Crossfield Products Corp. for specific recommendation)**

D. Sheet metal flashing **(Note to Specifier: Sheet metal flashing shall be minimum 26 gauge "bonderized". All joint or seams shall be caulked with MiraThane 500 (Resing Binder) flashing paste or approved equal. Flashing to be in accordance with SMACNA Architectural Sheet Metal Manual.**

E. Plywood substrate including framing and blocking **Plywood shall be a minimum 5/8 inch (preferably 3/4 inch) exterior grade plugged and sanded or filled with Miraflex Filler underlayment. Plywood shall be supported 16" on center and properly blocked. Plywood shall be glued and attached with screws or screw type or approved ring shank nails.**

F. Slope for drainage: M**inimum 1/4 inch per foot slope to drain. Slope or Pitch is provided in the substrate or by application of Underlayments - Wire Lathe (1.75) embedded Miracote Repair Mortar. Provide adequate elevation at thresholds to maintain required slope to drain.**

1.04 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product Data: Submit manufacturer's technical data, application instructions and general recommendations for the waterproof elastomeric traffic bearing roof deck surfacing specified herein.

C. Samples for initial selection purposes in form of manufacturer's color charts showing full range of colors and finishes available.
   1. Submit 2-1/2" x 4" samples of MiraThane 500 system in color selected from color chart designated by the Architect.

D. Material certificates signed by manufacturer certifying that the waterproof elastomeric traffic bearing roof deck surfacing complies with requirements specified herein.

E. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Engage a competent and experienced Installer or applicator specialized in installing waterproof deck covering system types similar to that required for this Project and who is acceptable to manufacturer of primary materials.

B. Single-Source Responsibility: Obtain waterproof elastomeric traffic bearing roof deck surfacing materials, including primers, resins, hardening agents, and finish or sealing coats, from a single manufacturer.

C. Pre-Qualified Suppliers: Submit any request for alternative products for review two weeks prior to bid date. Any request for alternate products received after this date will not be considered.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.

B. Comply with manufacturer's directions for materials storage to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

1.07 PROJECT CONDITIONS

A. Environmental Conditions: Comply with waterproof elastomeric traffic bearing roof deck surfacing manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect work.

PART 2.00 PRODUCTS

2.01 MATERIALS

A. Troweled waterproof elastomeric traffic bearing roof deck surfacing shall be Miracote MiratTane 500 as manufactured by Crossfield Products Corp., Rancho Dominguez, California.

B. The Trowel applied waterproof elastomeric traffic bearing roof deck surfacing system shall be composed of a primer, moisture-cured polyurethane rubber binder with SBR, ABR and natural rubber aggregate basecoat, polyurethane top coat, and shall conform to the following standards:

2.02 PROPERTIES

A. Colors: As indicated, or if not otherwise indicated, as selected by Architect from manufacturer's standard colors.

B. Physical Properties: Provide a waterproof deck covering system that meet or exceed the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

Weight	0.46 lbs. per Sq.Ft.
Accelerated Weathering (ASTM G-23) (Atlas Twin-Arc Weatherometer--2,000 hrs.)	No cracking, blistering, delamination chalking, crazing or color change
Accelerated Aging (ASTM D-756)	No cracking, blistering, delaminating chalking, crazing or color change
Freeze-Thaw (ASTM C-67)	No breakage or weight loss
Percolation (ICBO standard)	Complies
Water Absorption (ASTM D-570)	<6.09% No warping or cracking

Adhesion (ASTM D-903)	175 psi
Hardness (ASTM 2240)	60-70 Durometer A
Crack Bridging and Low Temperature Flexibility (ASTM C-836)	Complies
Tensile Strength (ASTM D-412)	1,050 psi
Elongation (ASTM D-412)	500%

Chemical Resistance

Industrial Detergent	No change in texture or color
Salt (20%)	No change in texture or color
Ammonia Solution (5%)	No change in texture or color
Muriatic Acid (10%)	No change in texture or color
Chlorine (10%)	No change in texture or color
Kerosene	No change in texture or color
Turpentine	Slight Temporary softening of surface
Paint thinner	Slight Temporary softening of surface

2.03 SUPPLEMENTAL MATERIALS

A. Optional Decorative Finishes: Type recommended or produced by manufacturer of waterproof elastomeric traffic bearing roof deck surfacing system to achieve desired color and texture.

PART 3.00 - EXECUTION

3.01 INSPECTION

A. Examine the areas and conditions where the waterproof elastomeric traffic bearing roof deck surfacing is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until the Contractor in a manner acceptable to the Architect has corrected unsatisfactory conditions.

B. Evaluate and document the level of moisture in the substrate to be within an acceptable range for application of specified waterproof deck covering system.

3.02 PREPARATION

A. Substrate: Perform preparation and cleaning procedures according to waterproof deck covering manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry and neutral substrate for application of waterproof deck covering.

B. Materials: Mix aqueous emulsions and aggregate when required as per manufacturer's instructions. Prepare materials according to waterproof deck covering system manufacturer's instructions.

3.03 APPLICATION

A. General: Apply each component of waterproof elastomeric traffic bearing roof deck surfacing system according to manufacturer's directions to produce a uniform monolithic surface of thickness indicated.

B. Apply primer-bond-coat over entire surface to be coated with the deck surfacing. Apply a thin even application of material. Do not allow primer bondcoat to puddle. Apply subsequent coats within 48 hours of application of primer-bond-coat.

C. Apply reinforced membrane detail coat at all vertical junctures, transitions, non-working cracks, and plywood joints and seams. Embed polypropylene fabric into polyurethane membrane liquid. Overlap all seams a minimum of 2 inches.

D. Trowel or notch-squeeze the MiraThane 500 urethane membrane body-coat over the entire surface. Take care to provide a uniform thickness and avoid trowel marks.

E. Broadcast rubber aggregate into the wet urethane body coat, allow to cure

F. Remove all excess rubber aggregate. Inspect surface to insure a completely monolithic seamless surface.

G. Roll MiraThane 500 Tie Coat to a uniform finish in the selected color. Allow 6 hours for cure.

H. Roll MiraThane 500 Top Coat to a uniform finish in the selected color. Allow 24 hours for cure, and protect from traffic for 48 hours after application.

H. Finished elastomeric traffic-bearing roof deck surfacing shall be a nominal 1/16 inch thick, uniform in color and texture.
(Note to Specifier: For installations of decorative finishes consult Crossfield Products Corp.)

3.04 CURING, PROTECTION AND CLEANING

A. Cure waterproof elastomeric traffic bearing roof deck surfacing materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process. Close application area for a minimum of 48 hours.

END OF SECTION