

SECTION 07180

TRAFFIC DECK COATING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Waterproof pedestrian traffic deck coating on concrete and plywood decks subjected to pedestrian traffic.

B. Related Sections:

1. Section 03300: Cast in Place Concrete
2. Section 06100: Rough Carpentry
3. Division 7: Flashings
4. Division 15: Floor drains.

1.02 SYSTEM DESCRIPTION:

- A. AVM Pedestrian Traffic Coating shall be AVM Elasto Fiberdeck 100, one hour fire rated, Class A, traffic bearing, walking and roof deck waterproofing membrane applied directly to plywood, concrete and sheet metal substrates.
- B. The system shall be designed for use on roofs, exterior balconies, patios, walkways, stairs, courtyards, sun decks and pool decks.

1.03 SUBMITTALS:

- A. Certificates: Submit a certificate stating applicator is approved by AVM, and, upon completion, shall submit a certificate stating that pedestrian traffic coatings have been installed in conformance with approved submittals and AVM recommendations.
- B. Product Data: Submit product data including complete installation instructions.
- C. Drawings: Submit details for each condition of the work. Show all adjoining work, and indicate methods of adhesion and attachment, laps, and related conditions. Indicate flashing and coating conditions at expansion joints and drains.

- D. Colors and Textures: Unless required colors and textures are specified or indicated, submit 2 by 2 inch samples showing the product, a texture sample board, and a color chart showing each available color for selection.
- E. Samples: Submit samples of the coating in required colors and textures, not less than 6 inches by 6 inches in size.
- F. Experience Record: Submit a list of at least five installations on which each of the materials and systems proposed for use are in satisfactory service.
- G. Submit certificate, letter or other evidence, indicating that applicator is authorized by AVM Industries to install the specified products.
- H. Maintenance Recommendations: Submit manufacturer's recommended maintenance procedures, including proposed recoating schedule.

1.04 QUALITY ASSURANCE

- A. Approvals: AVM Elasto Fiberdeck 100 shall bear approvals as follows:

ICBO ER-5615

City of Los Angeles Research Report No. 25430
- B. Qualifications of Installer: A firm which has at least 3 years experience in work of the type required by this section, and is authorized by AVM Industries to install the specified products.
- C. Pre-Installation Conference and Inspection: After approval of submittals but prior to starting installation of work of this section, Contractor shall conduct a meeting at the job site attended by the Contractor, Owner, Architect, applicator, and a representative of the pedestrian traffic coating material manufacturer. The applicator and the material manufacturer's representative shall inspect the substrates to receive work of this section and submit a written report of defective conditions to Owner and Contractor.

Note to specifier: The following is optional. Contact manufacturer.

- D. Manufacturer's Representative: Make arrangements necessary to have a trained representative of the manufacturer on-site periodically during application

of the pedestrian traffic coating to review installation procedures.

- E. Materials shall comply with current State of California and local Air Quality Management District requirements for volatile organic compounds, (not over 350 grams per liter).

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Delivery of Materials: Deliver materials in manufacturer's unopened containers fully identified with manufacturer's name, product name and, where applicable, shelf life.
- B. Storage of Materials: Store materials in unopened containers at temperatures between 50 degrees F. and 90 degrees F. Do not store materials in direct sunlight or where they could be damaged by water or rain. Store off ground and protect from damage.

1.06 PROJECT CONDITIONS:

- A. Protection: Apply suitable impervious type masking to preclude staining of adjacent surfaces. Provide additional protection as necessary to supplement masking; cover entire area of building subject to damage or staining.
- B. Protection During Installation: Protect adjacent work during installation of work of this Section.
- C. Weather Conditions: Do not apply work of this Section if temperature of surfaces to receive waterproofing or ambient temperature are below 40 degrees F or above 90 degrees F. Do not install materials when water or dampness in any form is present on the substrate, if materials are wet, or if rain is imminent.
- D. Coordination: Coordinate installation of AVM SYSTEM 100 with installation of sheet metal and other finish materials.
- E. Floor and Area Drains and Scuppers: Obtain details of floor drains, area drains and scuppers, and review with manufacturer of the pedestrian traffic coating to assure compatibility. Report in writing conditions which require correction.

1.07 WARRANTY:

- A. Furnish written warranties, against defects in materials and workmanship and agreeing to maintain work of this section in watertight condition for five years. All components of the finished system shall be included in the warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER:

- A. AVM Industries, LLC
8245 Remmet Avenue
Canoga Park, CA 91304
(818) 888-0050
(888) 414-1041
FAX (818) 888-0030
www.avmindustries.com

2.02 MATERIALS

Note to specifier: The following products are required for fire rated installations over single thickness 5/8" plywood and where substrates are uneven or improperly sloped:

- A. Underlayment: AVM Crete 6400, pre-proportioned kit consisting of AVM Aggregate 400 and AVM Concrete Additive 7400, as follows:
 - 1. AVM Aggregate 400: 50 pound bag of cementitious AVM Aggregate 400.
 - 2. AVM Concrete Additive 7400: 1.00/5.00 Gal containers of the AVM Concrete Additive 7400 Liquid.
- B. Lath for underlayment: AVM Metal Lath, electro galvanized metal lath weighing not less than 2.5 pounds per square yard, conforming to ICBO 4135 and ASTM 8924. Sheet size shall be 27 inches wide, 98 inches long.
- C. Staples for attaching lath: 16 gauge galvanized or similar non-rusting type, with 1 inch crown and 5/8 inch legs.

end underlayment
- D. Primer: AVM Primer 100, suitable for wood, concrete, and sheet metal substrates.
- E. Reinforcement for Membrane: AVM Mat 100, Multi-directional chopped strand fiberglass mat, minimum weight of 3/4 ounce per square foot.

- F. Resin: AVM Base Resin 100, Integral color acrylic base coat resin.

Note to specifier: Texture 100 is flexible, recommended for plywood decks. Texture 6200 is harder, recommended for concrete decks, or where heavy furniture will be placed on the deck.

- G. Texture Coat: One of the following, as approved:
1. AVM Texture 100, A pre-mixed, ready-to-use acrylic based texture coating.
 2. AVM Crete Texture 6200, premixed, ready-to-use cementitious based texture coating.

Note to specifier: Topcoat 4100 is the original product. 4150 is an improved product, more stain resistant and more durable. Topcoat 4200 is a heavy duty non-skid material. All materials meet requirements for basic skid resistance, 4200 is very sandy, and recommended for conditions where extreme resistance to skidding is required.

- H. Top Coat: Integral color, or clear acrylic topcoat, one of the following, as approved:
1. AVM Top Coat Sealer 4100.
 2. AVM Top Coat Sealer 4150, durable, stain resistant.
 3. AVM Top Coat Sealer 4200, heavy duty, non-skid.
- I. Sealants: Sika Flex 1A, or equal, recommended by membrane manufacturer.
- J. Patching Compound: AVM Acripatch 5020, (medium duty) for application at joints, voids, cracks, and wood knots not exceeding 1/4 inch maximum thickness.
1. Use grades as required for size and configuration of area to be patched:

Medium Duty: AVM Acripatch 5020.

Fine: AVM Acripatch 5010

Heavy Duty: AVM Acripatch 5030.
- K. All Other materials: Manufacturer's standard for items required or type be suited for intended use.

PART 3 - EXECUTION

3.01 INSPECTION:

- A. Examine substrate, adjoining construction and conditions under which work is to be installed. Do not proceed with work until unsatisfactory conditions have been corrected.
 - 1. Concrete Substrates: Verify that mortar bed or concrete surface provides adequate slope for drainage.
 - 2. Plywood Substrates: Verify that plywood is minimum 5/8 inch thick, exterior grade, Structural, CDX or ACX with smooth side up, and with maximum span of 16 inch between supports. Verify that edges are supported and rigidly attached to supports with adhesive and/or non-rising ring shank nails. Verify that sheets are spaced 1/8" apart. Verify that fasteners are flush with plywood surface, or slightly depressed.
- B. AVM Elasto Fiberdeck 100 shall not be installed on OSB or other manufactured chip-type boards.

3.02 PREPARATION

- A. Preparation of Surfaces: Clean substrate of materials, including curing compounds, form release agents and retarding agents, which would impair bond of membrane to substrate. Patch cracks, voids and honeycombs to provide smooth, structurally sound surface. Cut off high spots and grind smooth. Apply AVM System 100 only after curbs, drains, railing supports and other items have been installed.
- B. Related Sheet Metal: Verify that sheet metal flashing and related accessories are clean, secure and joints solidly embedded in sealant compatible with the membrane. Remove oil residue from galvanized and bonderized surfaces. Seal joints in sheet metal at corners, drains and scuppers, voids, holes and posts.
- C. Plywood Substrate: Seal plywood joints and cracks flush with AVM Acripatch 5020. Immediately prior to application of membrane, clean surface to remove all residual dust.
- D. Concrete Substrate: Clean concrete of dust, dirt, oil, grease and curing compounds. Prime concrete. Clean hairline cracks and rout out cracks larger than 1/8 inch. Seal cracks flush with AVM Acripatch 5020

patching compound. Immediately prior to application of membrane, clean surface to remove all residual dust.

Note to specifier: The AVM traffic coating material cannot be used to cover expansion joints. The material can be wrapped into joints under certain conditions, or terminated adjacent to the joint, depending on the conditions. Contact AVM for specific information regarding details at joints.

- E. Expansion Joints: Do not use traffic coating materials to cover expansion joints. Terminate material at joints as approved.

3.03 PROTECTION OF ADJACENT CONSTRUCTION

- A. Protect building from damage resulting from spillage, dripping and dropping of materials. Prevent materials from entering and clogging drains and water conductors. Repair and restore or replace other work which is spoiled or damaged in connection with performance of waterproofing work.

3.04 INSTALLATION

Note to specifier: Underlayment is mandatory for one hour fire ratings on single thickness 5/8" plywood decks and for uneven or improperly sloped concrete decks. Optional otherwise.

- A. Underlayment Over Plywood Surfaces:
 - 1. Primer: Apply AVM Primer 100 to all plywood and sheet metal surfaces, at the rate of approximately one gallon per 200 to 300 square feet. Allow primer to cure until dry, approximately 15-45 minutes depending on temperature and wind conditions. Cover primed areas with AVM Crete 6400 within 12 hours of initial primer application or re priming shall be required.
 - 2. Metal Lath: After primer has cured, lay out the metal lath on the entire plywood area to receive the underlayment. Do not overlap sheets. Terminate the lath 1/4 inch away from flashing metals. Lay the sheets close as possible to each other without overlapping them. Maximum distance between sheets should not exceed 1/4 inch). Staple the sheets together at the rate of one staple per inch along the edges of the sheets, by attaching one leg of the staple into one sheet and the other leg into the other sheet. Apply not less than 16 staples per square foot in the field area of each sheet, evenly spaced.

3. Drains: Arrange sheets of lath to facilitate water flow into the drains.
 4. AVM Crete: Apply the AVM-Crete when temperatures are between 50 degrees F and 90 degrees F. Mix one bag of the AVM Aggregate 400 with one gallon of the AVM Concrete Additive 7400 using an electric drill and paddle, until thoroughly mixed. Apply the AVM Crete by using a trowel or float. Make sure all the holes in the metal lath are covered. The AVM Crete shall be applied in maximum one inch thickness, and may be feathered to a minimum thickness of 1/4 inch. If more than one inch thickness is required, add 7 pounds of 1/4 inch pea gravel to each batch.
 5. Curing Time: For thicknesses of 1/2 inch or less allow 24 to 48 hours curing time. For thicknesses over 1/2 inch allow a minimum of 72 hours curing time. Allow additional curing time in cool or damp weather.
- B. Installation of Pedestrian Traffic Coating:
1. Cleaning: Lightly scrape the surfaces to receive the deck coating system. Fix imperfections, if any. Then thoroughly clean the substrate.
 2. Patching: Apply the patching compound at the edges of the underlayment and at hairline cracks and other imperfections. Where underlayment is terminated 1/4 inch from sheet metal, apply patching compound in the joint between the materials, and cover at least half the width of the sheet metal. Allow the patching compound sufficient time to dry. Maximum thickness of patching compound shall be 1/8-inch per lift to maximum total thickness of 1/4 inch.
- C. Primer: Apply to surfaces scheduled to receive membrane. Apply at the rate of approximately one gallon per 200 square feet. Allow primer to cure to complete dryness (approximately 15-45 minutes depending on temperature and wind conditions) before base membrane is applied. Cover all primer within 12 hours of initial application or re priming shall be required.
- D. Fiberglass Mat: Lay out the AVM Mat 100 in shingle fashion, with the top layer at the higher level overlapping the lower level a minimum of 2 inches. Overlap mat material over all sheet metals and other items as follows:

1. Edge Metal: Terminate the fiberglass mat approximately 1/2 inch from the edge metal's edge. The mat shall overlap the edge metal a minimum of one inch.
 2. Counterflashing: Extend the fiberglass mat to the counterflashing, or to at least one inch above the deck.
 3. Overlap edges of adjoining sheets of fiberglass mat not less than 2 inches.
- E. Drains: Extend the mat onto or into the drain, as indicated on approved submittals. Refer to drain details for proper termination procedures.
- F. Repair of Fiberglass Mat: Cut out bubbles and replace damaged fiberglass mat as required. Feather out fiberglass joints and check corners and edges for gaps, twists, or other damage. Repair or replace the fiberglass mat as required.
- G. Base Coat Resin: Apply the AVM Base Resin 100 over the AVM Mat 100 at the rate of 40 to 50 square feet per gallon. Work the AVM Base Resin 100 into the fiberglass mat. Apply sufficient pressure to thoroughly embed the AVM Base Resin 100 into the fiberglass mat. Be sure that the mat is properly laminated to the substrate. Allow the base coat membrane to cure at least overnight.
- H. Base Coat Membrane Inspection
1. Verify that the base coat membrane is thoroughly dry. Inspect the surface for bubbles located at the fiberglass joints or within the field area. Inspect the membrane for pinholes.
 2. If bubbles, blotches, clumps or other imperfections occur in the base coat membrane, remove the imperfection and the surrounding area by cutting them out and reinstalling the base coat membrane as specified above.
 3. Inspect the membrane for pinholes. If pinholes are found, apply a second coat of the AVM Base Resin 100 at the rate of one gallon per 100 to 150 square feet, or until the pinholes are sealed.
- I. After inspections and related repairs are complete, and immediately prior to installation of the texture coat, clean the base coat membrane. Apply a thin coat of the AVM Acripatch 5020 at fiberglass

seams and in other areas where imperfections or patches are visible.

- J. Texture Coat: Apply the selected AVM Texture coat, at the rate of one gallon per 40 to 60 square feet, or as required depending on selected texture. Match the approved sample.
- K. Allow the texture coat to properly cure prior to walking on the textured areas. After curing, remove all masking materials.
- L. If required to match approved texture, apply a second coat of the AVM Texture coat.
- M. Top Coat Sealer: Thoroughly clean the deck areas prior to applying the selected AVM Top Coat Sealer by lightly scraping the surface and removing all residue. Apply the selected AVM Top Coat Sealer over the cured texture coat at the rate of 100-120 square feet per gallon. Allow the AVM Top Coat Sealer to cure for 24 hours.

Optional for longer life.

- N. Not less than 24 hours after application of the first top coat sealer, apply a second coat.

3.05 PROTECTION:

- A. Protect AVM System 100 from damage by subsequent construction operations.

END OF SECTION