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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

Section numbers are from *MasterFormat 1995 Edition*, with section numbers from *MasterFormat 2004 Edition* in parentheses. Delete version not required.

SECTION 06158 (06 15 43.13)

OVER-DECK-JOIST WATER DIVERSION SYSTEM

Specifier Notes: This section covers “DEK Drain TOPSIDE®” over-deck-joist water diversion system for exterior raised decks. Consult DEK Drain® for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Over-deck-joist water diversion system for exterior raised decks.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as required. Delete related sections not required. List other sections with work directly related to this section.

- A. Section 06150 (06 15 00) – Wood Decking.

1.3 REFERENCE STANDARDS

Specifier Notes: List reference standards mentioned in this section, complete with designations and titles. Delete reference standards not included in this edited section. This article does not require compliance with reference standards, but is merely a listing of those used.

- A. ASTM D 412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension.
- B. ASTM D 471 – Standard Test Method for Rubber Property—Effect of Liquids.
- C. ASTM D 624 – Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- D. ASTM D 746 – Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
- E. ASTM D 816 – Standard Test Methods for Rubber Cements.
- F. ASTM D 1149 – Standard Test Methods for Rubber Deterioration-Cracking in an Ozone Controlled Environment.
- G. ASTM D 4637 – Standard Specification for EPDM Sheet Used In Single-Ply Roof Membrane.
- H. ASTM E 96 – Standard Test Methods for Water Vapor Transmission of Materials.

1.4 SUBMITTALS

Specifier Notes: Edit submittal requirements as required. Delete submittals not required.

- A. Comply with Section 01330 (01 33 00) – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.

Specifier Notes: Delete samples if not required.

- C. Samples: Submit manufacturer's samples of over-deck-joint water diversion system materials.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Warranty Documentation: Submit manufacturer's standard warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

- B. Storage and Handling Requirements:
1. Store and handle materials in accordance with manufacturer's instructions.
 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 3. Store materials in clean, dry area.
 4. Store materials out of direct sunlight.
 5. Keep dirt, oil, and grease away from materials.
 6. Protect materials during storage, handling, and installation to prevent damage.

1.6 WARRANTY

- A. Warranty Period: Lifetime.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. DEK Drain, 6470 Freetown Road, Suite 20019, Columbia, Maryland 21044. Toll Free (866) 335-3724. Fax (888) 819-3232. Website www.dekdrain.com. E-mail info@dekdrain.com.

2.2 OVER-DECK-JOIST WATER DIVERSION SYSTEM

- A. Over-deck-joist Water Diversion System: "DEK Drain TOPSIDE".
1. Prefabricated, self-forming drain panels capture water seepage from deck surface and channel water away to desired location.
 2. Keeps deck framing and area under deck dry.
 3. Channeled water flows away from building.
 4. Water Diversion Flange (Cap):
 - a. Covers overlapping drain panels on top edge of deck joists.
 - b. Prevents water seepage between overlapping drain panel edges.
 - c. Fabricated from same membrane material as drain panels.
 5. Headwater Flashing:
 - a. Captures rain water running down sidewall of building and directs flow into drain panels for proper discharge.
 - b. Prevents water intrusion into space between sidewall of building and ledger board of deck structure.
 - c. Fabricated from same membrane material as drain panels.
 6. Bib:
 - a. Located at terminal end of drain panels.
 - b. Installed vertically, spanning bay opening and affixing to inside face of 2 adjacent joists and extending down into collection gutter.
 - c. Directs discharge into collection gutter.
 - d. Prevents discharge from over-shooting collection gutter.
 - e. Fabricated from same membrane material as drain panels.

Specifier Notes: A collection gutter at the discharge end of the over-deck-joist water diversion system to direct the runoff is optional. Collection gutter is site fabricated. Delete collection gutter if not required.

7. Collection Gutter: Captures and directs runoff at discharge end of drain panels for disposal at desirable location.
8. Fasteners:
 - a. Panels, Cap, Flashing, and Bibs: 1/2-inch T-50 staples.
 - b. Collection Gutter: Determined by type and style of collection gutter system.

- B. Membrane Material: Ethylene Propylene Diene Terpolymer (EPDM) fire-retardant, non-reinforced membrane.
1. Factory-fabricated, elastomeric, homogenous, roof covering membrane material.
 2. Self Healing: Membrane seals itself around penetrating fasteners.
 3. Fire-Retardant Membrane: Inhibits spread of flame.
 4. Surface Finish: Cleaned, washed, dried, and dust free.
 5. Nominal Thickness: 45 mils.
 6. Nominal Weight: 0.30 psf.
 7. Color: Black.
 8. Tensile Strength, Minimum, ASTM D 412: 1,650 psi (11.3 MPa).
 9. Ultimate Elongation, Minimum, ASTM D 412: 480 percent.
 10. Tear Strength, Minimum, ASTM D 624, Die C: 200 lbf (35.0 kN/m).
 11. Factory Seam Strength, Minimum, ASTM D 816 Modified: Membrane rupture.
 12. Brittleness Point, Maximum, ASTM D 746: Minus 67 degrees F (minus 55 degrees C).
 13. Ozone Resistance, ASTM D 1149: No cracks.
 14. Resistance to Water Absorption, Maximum Change in Mass, ASTM D 471: Plus 2.0 percent.
 15. Water Vapor Permeance, Maximum, ASTM E 96, Procedure B or BW: 0.05 perms.
 16. Resistance to Outdoor (UV) Weathering, ASTM D 4637: No cracks or crazing.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine framed deck to receive over-deck-joint water diversion system.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install over-deck-joint water diversion system in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install over-deck-joint water diversion system horizontal to and on top of deck joists and under deck surface to create drainage basins to capture and channel water away to keep deck framing and area under deck dry.

Specifier Notes: The collection gutter is optional. Delete if not required.

- C. Ensure channeled water in over-deck-joint water diversion system flows [into collection gutter and] away from building.

- D. Ensure water does not leak from over-deck-joint water diversion system to area under deck.

3.3 PROTECTION

- A. Protect installed over-deck-joint water diversion system from damage during construction.
- B. Repair damaged membrane by patching both sides.

END OF SECTION