



Standard Guide for Design of Standard Flashing Details for EPDM Roof Membranes¹

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1. Scope

1.1 This guide covers the design of details for typical conditions encountered in new ballasted, mechanically attached or fully adhered ethylene propylene diene terpolymer (EPDM) sheet roof systems.

1.2 This guide illustrates general details for typical conditions that may be encountered on an EPDM sheet roofing system. The guide will assist the designer in preparing details for each specific condition that may occur on a project.

1.3 The values stated in SI units are to be regarded as standard. The conventional units given in parentheses are provided for information purposes only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

D 1079 Terminology Relating to Roofing, Waterproofing and Bituminous Materials²

3. Terminology

3.1 **Definitions**—For definitions of terms used in this guide and not listed below, see Terminology D 1079.

3.2 **ballasted sheet roofing, n**—a system which incorporates a loose laid vulcanized EPDM sheet over an accepted substrate and is held in place with either stone ballast, pavers, or a combination thereof.

3.3 **fully adhered sheet roofing, n**—a system which incorporates a vulcanized EPDM sheet fully adhered over a secured and accepted substrate.

3.4 **mechanically attached sheet roofing, n**—a system which incorporates a mechanically fastened vulcanized EPDM sheet over a secured and accepted substrate.

4. Significance and Use

4.1 This guide illustrates general details for typical condi-

tions that may be encountered on an EPDM sheet roofing system.

4.2 This guide does not address all requirements associated with the installation of EPDM membrane flashing, such as membrane cleaning and surface preparation, fastener spacing, adhesive application and other seaming requirements which may vary by membrane system supplier.

4.3 Insulation, fastener types, protection mats, stone ballast, pavers, and requirements for perimeter attachment are not covered by this guide. The designer shall review the project requirements and consult the membrane system supplier, building insurer, and local building codes for specific requirements.

5. Drawings

5.1 This guide is not all-inclusive. The designer shall detail all typical and special conditions on the project. Particular attention shall be given to transitions in plane and intersection of different details. The membrane system supplier or system applicator shall provide shop drawings of each condition to confirm field conditions and to verify their understanding of the design intent.

5.2 Insulation, protection mats, stone ballast and pavers have been omitted for clarity.

5.3 Treated wood blocking shall be installed to provide attachment for accessory items such as gravel stops, metal sleeves, etc.

6. Penetrations

6.1 Flashing at penetrations shall accommodate differential movement between the deck and penetration (that is, pipe, conduit, column or drain).

6.1.1 Where “H” or “I” column sections occur, install blocking between flanges to facilitate installation of flashing. Weld sloping steel hoods to column. Extend vertical leg of hood a minimum 100 mm (4 in.) over flashing.

6.1.2 Set cast iron drains with the top of the flange level with or slightly below the surrounding deck area. When insulation is installed below the sheet membrane provide a minimum 900 by 900 mm (36 by 36 in.) transition sump. Do not run field or factory seams within 600 mm (24 in.) of drain flange edge.

7. Expansion Joints

7.1 Expansion joints are designed to permit independent

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² *Annual Book of ASTM Standards*, Vol 04.04.