

Mule-Hide Living Roof™ Systems

"Attachment III"

Addendum for Fully Adhered EPDM and TPO Membrane Roofing Systems

A. General

1. Refer to the EPDM or the TPO Membrane Roofing System specifications for general installation methods.
2. The information provided herein are options to be followed when installing the GreenGrid Modules over fully adhered Mule-Hide EPDM or TPO membrane roofing systems.
3. Insulation other than Mule-Hide labeled Poly ISO 1 or Poly ISO 2 insulation must be approved by Mule-Hide prior to installation.
4. Acceptable cover boards shall be either Dens-Deck Prime or Securock. Boards other than those listed must be reviewed and approved by Mule-Hide prior to installation of the roof system.
5. Concrete pavers may be required in perimeter areas along exterior roof edges where parapet walls are not provided. Contact Mule-Hide for specific project requirements.
6. It is the building owner's/owner's representative's responsibility to determine the suitability of the GreenGrid modules for the intended project and confirm the roof deck will support the weight of the saturated GreenGrid modules, specified roof system and any other live or construction loads.

B. Insulation Attachment

1. The insulation and membrane must be installed and secured in compliance with the specific job design requirements for fire and uplift. The GreenGrid modules are not to be considered as securement for the membrane.
2. Refer to Section D. Acceptable Assemblies for EPDM Membranes, for options on insulation attachment, seaming requirements, use of a cover board, and protection fabric requirements.
3. Refer to Section E. Acceptable Assemblies for TPO Membranes, for options on insulation attachment, seaming requirements, use of a cover board, and protection fabric requirements.

C. Membrane Installation

1. When using the 90-mil EPDM membrane, the 30-yr enhancements and details must be followed. All field seams shall be completed with 3" wide In-Seam Tape. All field seams shall be stripped with 6" wide Cured Cover Tape. Mule-Hide Tape Primer must be used for all seams and stripping. All "T-Joints shall be covered with 6" x 6" pieces of Uncured Flashing Tape or EPDM Pre-Cut Corners. Tape Primer must be used.
2. When using the 45-mil or 60-mil EPDM membrane, all field seams shall be completed with 3" wide In-Seam Tape. All field seams shall be stripped with 6" wide Cured Cover Tape. Mule-Hide Tape Primer must be used for all seams and stripping. All "T-Joints shall be covered with 6" x 6" pieces of Uncured Flashing Tape or EPDM Pre-Cut Corners. Tape Primer must be used.
3. When using the TPO membrane, all field seams shall be covered with 6" wide TPO Cover Strip (using Mule-Hide Tape Primer) or 6" wide TPO Reinforced Flashing Strip. The TPO Reinforced Flashing Strips must be hot air welded along all edges. Seam intersections ("T-Joints") must be overlaid with hot air welded, 6" x 6" pieces of Non-reinforced TPO Flashing. Complete seam intersections (T-Joints) prior to applying Cut-Edge Sealant to cut edges. After welding has been completed and the seams checked, a bead of Cut-Edge Sealant shall be applied along all cut edges.

D. Acceptable Assemblies for EPDM Membranes

1. 10 or 15 year System (with or without Wrap-Around Warranty)
 - a. Assembly EFA-1
 - Membrane Thickness: .045" or .060"
 - Insulation Attachment: 1 layer or multi-layer mechanically attached or adhered.
 - Cover board: Required (adhered only)
 - Membrane Seaming: 3" In-Seam Tape (min 2-1/2" wide seam). Seam covered with 6" wide Cured Cover Tape
 - Protection Fabric: 6 oz/yd²
 - Module Depth: 4" or 8"

2. 20-year System (with or without Wrap-Around Warranty)

Note: When using .090" thick EPDM membrane, all 30-yr enhancements and 30-yr details must be followed. When using .060" thick EPDM membrane, 20-yr enhancements must be followed.

- a. Assembly EFA-2
 - Membrane Thickness: .060" or .090"
 - Insulation Attachment: 1 layer or multi-layer mechanically attached or adhered.
 - Cover board: Required (adhered only)
 - Membrane Seaming: 3" In-Seam Tape (min 2-1/2" wide seam). Seam covered with 6" wide Cured Cover Tape and all seams caulked with Lap Sealant
 - Protection Fabric: 6 oz/yd²
 - Module Depth: 4" or 8"

E. Acceptable Assemblies for TPO Membranes

1. 10 or 15 year System or Wrap-Around Warranty
 - a. Assembly TFA-1
 - Membrane Thickness: .045" or .060"
 - Insulation Attachment: 1 layer or multi-layer mechanically attached or adhered.
 - Cover board: Required (adhered only)
 - Membrane Seaming: Min. 1.5" wide heat welded seam covered with 6" wide TPO Cover Strip or 6' wide TPO Reinforced Flashing Strip heat welded
 - Protection Fabric: 6 oz/yd²
 - Module Depth: 4" or 8"

2. 20-year System (with or without Wrap-Around Warranty)

Note: When using .060" or .080" thick TPO membrane, all 20-yr enhancements must be followed.

- a. Assembly TFA-2
 - Membrane Thickness: .060" or .080"
 - Insulation Attachment: 1 layer or multi-layer mechanically attached or adhered
 - Cover board: Required (adhered only)
 - Membrane Seaming: Min. 1.5" wide heat welded seam covered with 6' wide TPO Reinforced Flashing Strip heat welded
 - Protection Fabric: 6 oz/yd²
 - Module Depth: 4" or 8"

Always check the Mule-Hide Website (www.mulehide.com) for the latest revisions to this document. Mule-Hide reserves the right to make changes without notice.

Mule-Hide Products Co., Inc.
1195 Prince Hall Dr.
Beloit, WI 53511