

Technical Guide

"The name trusted in roofing since 1906"



How to fully adhere EPDM using Bonding Adhesive

Description

Mule-Hide Bonding Adhesive is a solvent adhesive that is shipped in yellow containers and is yellow in color. The adhesive is used to bond Mule-Hide EPDM membranes to approved substrates as a double-sided, contact adhesive. This adhesive can be used on both horizontal and vertical surfaces.

Approved substrates include fiberglass mat faced polyiso, high density wood fiberboard, plywood, oriented strand board, wood plank, Dens-Deck Prime or Securock Gypsum-Fiber Roof Board.

Precautions

Bonding adhesive is extremely flammable. Do not smoke while applying or breathe vapors.

Not for use over polystyrene insulation without a cover board.

When adhesive is stored at temperatures lower than 60°F, restore to room temperature prior to use.

Opened containers should be used within 48 hours.

Consult our Technical Bulletin No. 1101, "Cold Weather Installation" for application tips when application temperatures are below 60°F.

Application

1. Mule-Hide recommends the use of 10' wide, 60-mil thick EPDM sheet when the membrane is fully adhered. Sheets wider than 10' have factory folds that may not relax and lay flat during cold weather. This may result in wrinkles in the field of the roof and may also present problems with seaming the sheets together. Sheets of 45-mil EPDM will have a higher tendency to swell and wrinkle due to the solvents contained in the adhesive.
2. Unroll the Mule-Hide EPDM Membrane and position without stretching. Large sheets may be moved into final position by encapsulating air under the membrane and floating it into place. Allow the membrane to relax at least 30 minutes prior to installation. Inspect and remove any damaged membrane. Lap sheets a minimum of 4" to allow for a proper field splice. Membrane overlaps shall be shingled with the flow of water. Membrane should run perpendicular to the direction of steel deck flutes and orientation of wood decks where possible.
3. After several sheets of EPDM membrane have been positioned, begin by folding back one half of the first sheet's length to expose the bottom side of the sheet. Smooth out the sheet to remove any wrinkles.
4. Stir adhesive thoroughly until all settled pigments are dispersed and product is uniform in color. Adhesive should be stirred a minimum of 5 minutes.
5. Apply Mule-Hide Bonding Adhesive to substrate and membrane using a 9" (230 mm) wide, ½" (13 mm) medium nap roller. Application should be continuous and uniform avoiding globs or puddles. Any coated area, which has been exposed to rain, should be allowed to dry and then recoated. Application rate will be approximately 120 square feet per surface (substrate and membrane), or 60 square feet of finished (bonded) surface.
6. Do not apply adhesive in the seam area. Clean any adhesive from the seam area before it dries.
7. When the adhesive on the membrane has dried sufficiently to be tacky but not produce adhesive legs or strings with a light touch of a dry finger, the coated membrane shall be slowly rolled onto the coated substrate in such a manner as to eliminate wrinkles and trapped air. Large sheets may be moved into final position by encapsulating air under the membrane and floating it into place. Once the two surfaces touch, bonding will occur. Inadvertent wrinkles in the sheet may need to be cut out and patched.

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8. If the adhesive on either surface has dried excessively, then the surface in question must be recoated with adhesive. The adhesive must show complete transfer between the substrate and membrane surfaces when peeled back as evidenced by adhesive legs and strings.
9. Working in cooler temperatures will result in longer drying times for solvent base adhesives. Failure to allow the adhesive to flash off will result in solvent blistering of the membrane. Form a fist and press your knuckles into the adhesive and give your wrist a quarter turn. If the surface is tacky but does not string, the surfaces are ready to mate together.
10. Once the sheet has been rolled out, it must be broomed with a large nylon bristled push broom to promote 100% adhesion. Broom the entire surface using sufficient pressure to work out any bubbles or wrinkles.
12. Do not attempt to work a large area as that may allow the adhesive to completely dry before you can lay the membrane into it. The membrane must be laid into the adhesive while it is tacky. If the adhesive has dried completely, clear you must apply more adhesive before installing more membrane.
13. Install subsequent sheets in the same manner, overlapping the previous sheet a minimum of 4" for the field seam area. All sheets must be lapped in shingle fashion so that water flows over the seam and not against the seam.
14. Wrinkles that extend thru field seams must be cut and patched using cured EPDM.
15. Splice field seams using in-seam tape and tape primer.

The information given on this PDS is subject to change without notice. Always check the Mule-Hide website at www.mulehide.com for the latest information, changes and updates or contact Mule-Hide Products Company at 800-786-1492.