

Technical Guide

"The name trusted in roofing since 1906"



How to install Fully Adhered EPDM over FR Deck Panel

PRODUCT DESCRIPTION

The following application guidelines cover the installation of Mule-Hide FR Deck Panels Class A and the installation of EPDM membranes to the FR Deck Panels. The FR Deck panel is a composite panel consisting of a layer of Pyrotite - an inert, inorganic fire-shield, factory applied to either plywood or oriented strand board (OSB). The FR Deck Panels are available in a sheet size of 4' x 8' and nominal thickness ranging from 7/16"(OSB) to 23/32"(plywood). Mule-Hide Acrylic Water Base Bonding Adhesive is used to adhere the EPDM membrane to the FR Deck Panel.

BASIC USES: FOR HORIZONTAL ROOF DECK APPLICATION ONLY!

FR Deck Panel Installation (OSB or Plywood):

The FR Deck panel is supplied with the same dimensions (4' x 8' sheets) as standard plywood and OSB panels and is installed in the same manner. The long dimension of the panel shall run perpendicular to the roof supports with end joints staggered between courses. FR Deck Panels are installed with the pyrotite coating facing up and secured to the deck supports in compliance with applicable building code requirements.

When addressing fire and wind uplift, the FR Deck Panel (plywood based) may be substituted with the FR Deck Panel (OSB based) provided the OSB panel is of the same thickness. This applies only when adhering the EPDM membrane directly to the FR Deck Panel with the Mule-Hide Acrylic Water Base Bonding Adhesive.

Note: When installing FR Deck Panel Class A (plywood or OSB) to comply with a UL Class A assembly, all deck joints shall be blocked with nominal 2" x 4" lumber. Gaps in the deck panels shall be caulked RectorSeal FlameSafe FS900+ sealant, recognized in evaluation report ESR-1043.

EPDM Membrane installation using Mule-Hide Acrylic Water Base Bonding Adhesive:

As the coating on the FR Deck Panel provides a porous surface, the Mule-Hide Acrylic Water Base Bonding Adhesive is applied only to the substrate as a single-side, wet lay-in adhesive.

1. Align the EPDM membrane making sure there is sufficient membrane to cover the unit in one piece with ample material hanging over all edges. Allow the membrane to relax at least 30 minutes prior to applying adhesive.
2. Fold EPDM sheet in half, taking the front to rear or vice versa. Make sure not to move the material out of alignment. Another method is to re-roll the membrane onto a cardboard core.
3. Always thoroughly stir the adhesive before application. Apply the adhesive starting at the fold and working toward the end of the unit. Adhesive should be applied with a minimum 1/2-inch thick, napped paint roller. The adhesive shall be applied at an approximate rate of 100 square feet per gallon.
4. The adhesive is similar in consistency to a heavy latex paint and white in color. Apply a uniform coat to the substrate until it is white in color. Leave no voids when spreading the adhesive.
5. **As you apply the adhesive, immediately roll the membrane into the wet adhesive. Continue this process to the end of the roof. Repeat this procedure with the second half of the roof. Once the sheet is down, thoroughly broom the entire surface using sufficient pressure to work out bubbles or wrinkles.**

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6. Mule-Hide recommends periodically checking the adhesive application rate. Immediately after brooming the membrane, gently pull the sheet back from the end of the unit 1 to 2 feet and check the surface of the membrane. A uniform coat of adhesive should have transferred onto the EPDM membrane. This would indicate a sufficient amount of adhesive was used. Failure to observe a sufficient transfer of adhesive to the membrane indicates a less than adequate amount of adhesive was applied or the EPDM membrane was not immediately rolled into the adhesive while it was wet. The adhesive will turn clear and remain tacky but will not provide sufficient strength to hold the membrane in place. The applicator shall adjust the application rate accordingly. The membrane must be laid into the adhesive while it is wet.
7. When brooming the membrane, always broom toward the ends of the sheet. Always check the edges of the roof as some of the adhesive may drip along down the sides of the unit.

When applied as a single-side adhesive, the EPDM membrane may be moved and adjusted to remove any wrinkles. Working time before set-up takes place is approximately 5 to 10 minutes. As this product is water based and contains no solvents, actual drying time is dependent on temperature and humidity.

APPLICATION/COVERAGE RATES

The estimated (theoretical) coverage rate at room temperature is 100 to 120 square feet per gallon as a 1 side application over porous surfaces. Mule-Hide Acrylic Water Base Bonding Adhesive can be sprayed, rolled or brushed on almost any acceptable substrate.

INSTALLATION TEMPERATURE

Do not use adhesive if ambient temperature is below 45°F or if nighttime temperatures are expected to fall below 40°F within 48 hours after application. **DO NOT ALLOW ADHESIVE TO FREEZE!**

CLEAN UP

The adhesive can be removed from hands when wet with water and a light detergent. When dry, use a solvent followed by soap and water. With spray equipment, use water followed by solvent cleaners, followed by water with detergent. Paint roller covers can be left in material until next usage or cleaned with water when wet. Material spillage can be removed easily with water when wet. If adhesive has dried, peel off as much surface adhesive as possible and clean area with solvent until removed.

HANDLING

Mule-Hide maintains Material Safety Data Sheets on all of its products that contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers. Mule-Hide's Material Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Mule-Hide products in your facilities.

STORAGE

Store in unopened original containers at 60° F - 80° F for maximum storage life. Higher temperatures reduce normal storage life. Rotate stock.

CAUTION: Adhesive Product must be stored above 60° F. The adhesive cannot be used once frozen. Do not let Mule-Hide Acrylic Water Base Bonding Adhesive freeze. It is difficult to clean up when spilled on unrelated surfaces if left to dry. Do not double-stack pallets of adhesive pails. (See Produce Data Sheet and MSDS for additional information).

The information given 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.