



Product Data Sheet

Low-VOC BONDING ADHESIVE 1168

PRODUCT DESCRIPTION

Low VOC Bonding Adhesive 1168 is a high strength solvent-based contact adhesive that allows bonding of EPDM and TPO membranes to various porous and non-porous substrates. It is specially formulated using a blend of VOC exempt and non-exempt solvents to meet the < 250 g/l VOC content requirements of the OTC Model Rule for Single Ply Roofing Adhesives.

This product COMPLIES with the following California counties' VOC regulations:

Alameda, Contra Costa, El Dorado, Los Angeles, Marin, Napa, Orange, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, San Mateo, Santa Clara, Solano, Sonoma, and Tehama.



BASIC USES

Mule-Hide Bonding Adhesive is used for bonding cured flashings and membranes to a variety of substrates.

TYPICAL PHYSICAL PROPERTIES

Typical values*	
Base Material	Synthetic Rubber
Color	Yellow
Solids	21.0%
VOC:	250 g/l max
Flash Point	0° F (-17° C) Closed Cup
Brookfield Viscosity	5,000 Centipoises
Avg Net Weight	10.5 lbs. / gallon (4.76 Kg)
Packaging	5 Gallon Pails
Shelf Life	1 Year

*General properties. Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification or specification range for any particular property of this product.

BENEFITS & SUPPLEMENTAL STATEMENTS

- High strength adhesive with quick bonding characteristics
- Ease of application with a medium nap roller
- Provides excellent adhesion between EPDM or TPO membranes and a variety of substrates

CODE APPROVALS/COMPLIANCE

A variety of Factory Mutual Ratings and Underwriter Laboratory Classifications are available. Contact Mule-Hide Technical Department for additional information.

COVERAGE RATES

Coverage for Low VOC Bonding Adhesive 1168 is approximately 60 ft² (5.6 square m) per gallon (finished surface.) This coverage rate is an average and may vary due to conditions on the job site. Porous surfaces and substrates may require more bonding adhesive than the typical coverage rate.

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INSTALLATION TEMPERATURE

If adhesive is store at temperatures less than 60° F, restore to room temperature (~70° F) before using.

INSTALLATION INSTRUCTIONS

Surface Preparation

1. The surface, on or against which adhesive is to be applied, shall be clean, smooth, dry, free of fins, sharp edges, loose and foreign materials, oil and grease. Depressions greater than 1/4" (6 mm) should be feathered; using epoxy, mortar or other approved patching material. All sharp projections shall be removed by sweeping, blowing or vacuum cleaning.

Mixing

MIXING: Stir thoroughly until all settled pigments are dispersed and the cement is uniform in color. Minimum 5 minutes stirring is recommended.

Application

1. **After thorough stirring (minimum 5 minutes)**, apply Low VOC Bonding Adhesive 1168 to substrate and membrane using a 9" (228mm) wide, 1/2" (13 mm) medium nap roller. Application shall be continuous and uniform avoiding globs or puddles. An open time of 5 to 90 minutes, based on drying conditions is recommended before assembly. Low VOC Bonding Adhesive 1168 must be allowed to dry until it does not string or stick to a dry finger touch. Any coated area, which has been exposed to rain, should be allowed to dry and then recoated. **Do not apply adhesive to splice areas to be seamed.**
2. Roll the membrane onto the adhesive coated substrate while avoiding wrinkles. Immediately brush down the bonded portion of the sheet with a soft bristle push broom or a clean dry roller applicator to achieve maximum contact. In some applications, swelling of the membrane may occur initially, but this will disappear after several days' exposure. Do not re-broom membrane in an attempt to remove swelling.

Note: This adhesive may be slightly thicker than standard Low-VOC Bonding Adhesive and may require a longer drying time.

Review current Mule-Hide specifications and details for additional information.

Precautions

1. Review the applicable Material Safety Data Sheet for complete safety information prior to use.
2. Low VOC Bonding Adhesive 1168 is **EXTREMELY FLAMMABLE** -It contains solvents that are dangerous fire and explosion hazards when exposed to heat, flame or sparks. Do not smoke while applying. Do not use in a confined or unventilated area. Vapors are heavier than air and may travel along ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point and flashback. All containers should be grounded when material is transferred from one container to another. A red caution label is required when shipping. A fire extinguisher should be available. In case of fire, use water spray, foam, dry chemical or carbon dioxide. Do not use a solid stream of water because it can scatter and spread the fire.
3. Avoid breathing vapors. Keep container closed when not in use. Use with adequate ventilation. If inhaled, remove to fresh air. If not breathing, perform artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately. During application, efforts must be made to prevent fumes from entering the building via air ventilation ducts. Do not place open containers or mix adhesive near fresh air intake units. When possible, shut down or seal off the closest units.

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Precautions (continued)

4. If swallowed, **DO NOT INDUCE VOMITING**. Call a physician immediately.
5. Avoid contact with skin. Wash hands thoroughly after handling. In case of contact with skin, thoroughly wash affected area with soap and water. Contact physician if irritation persists. **Note:** Permeation resistant gloves (that meet ANSI/ISEA 105-2005) are recommended to be worn when using this product to protect hands from irritating ingredients.
6. Avoid contact with eyes. Safety glasses or goggles are recommended. If splashed in eyes, immediately flush eyes with plenty of clean water for at least 15 minutes. Contact a physician immediately.
7. Do not thin Low VOC Bonding Adhesive 1168. Thinning will affect performance. Excessively thick or gelled material should be discarded.
8. Opened containers of Low VOC Bonding Adhesive 1168 should be used within 48 hours. Adhesive will begin to thicken after this point, making it difficult and eventually impossible, to control applied thickness. In hot weather, do not leave sealed containers on roof for prolonged periods of time. In cold weather, keep material at room temperature until ready to use. Stir adhesive occasionally while using.
9. **Adhesive must be allowed to dry thoroughly.** If membrane is mated with the substrate prior to the adhesive being dry, blistering will occur and not subside over time.

10. KEEP OUT OF THE REACH OF CHILDREN

STORAGE & HANDLING

Low-VOC VOC Bonding Adhesive 1168 must be stored in original, unopened containers at temperatures between 60°F (15°C) and 90°F (32°C). Jobsite storage in excess of 90°F (32°C) may affect product shelf life. Prolonged exposure to below freezing temperatures will cause the adhesive to thicken and solidify in the can. Should the Low-VOC Bonding Adhesive be stored at temperatures lower than 25°F (-4°C), restore to room temperature for a minimum of 24 hours prior to use. Adhesive will perform as intended once it is returned to a liquid state. When temperatures are expected to be consistently below 40°F (4°C), a heated enclosure or hot box is required for storage.

PROTECTION & SAFETY

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

ADDITIONAL INFORMATION

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.

DISCLAIMER

The statements provided concerning the material shown are intended as a guide for material usage and are believed to be true and accurate at the time of printing. No statement made by anyone may supersede this information, except when done in writing by Mule-Hide Products Co., Inc. Since the manner of use is beyond our control, Mule-Hide does not authorize anyone to make any warranty of merchantability or fitness for any particular purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material. Buyer and user accept the product under these conditions and assume the risk of any failure, any injury person or property (including that of the user), loss or liability resulting from the handling, storage or use of the product whether or not it is handled, stored or used in accordance with the directions or specifications. Mule-Hide must be notified in writing of any claims and be given the opportunity to inspect the alleged failure before repairs are made.