# **Low-VOC Bonding Adhesive**

# Use with EPDM & TPO Systems

#### **Overview**

Henry Low-VOC Bonding Adhesive is a high-strength, solvent-based contact adhesive that allows bonding of Henry EPDM and TPO Membrane to various porous and non-porous substrates. Low-VOC Bonding Adhesive meets the < 250 gpl VOC content requirements of the OTC Model Rule for Single-Ply Roofing Adhesives. Low-VOC Bonding Adhesive is compatible with polyisocyanurate insulation, structural and lightweight concrete, plywood, oriented strand board, wood fiberboard, masonry, and various metal finishes. Low-VOC Bonding Adhesive is easily applied with a 9" (288 mm) medium nap roller, creating a strong adhesive bond between the membrane and substrate.

Low-VOC Bonding Adhesive <u>does not comply</u> 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.

These areas require the use of Henry Low-VOC Bonding Adhesive 1168.

#### Features and Benefits

- Can be applied with a medium nap roller for ease of application
- Provides excellent adhesion with Henry EPDM and TPO Membranes and a variety of substrates
- Lower viscosity promotes ease of application even in cold weather

#### **Mixing**

Stir thoroughly at least once per day until all settled polymers are dispersed and Low-VOC Bonding Adhesive is a uniform yellow color. During mixing, scrape the sides and bottom of the pail until Low-VOC Bonding Adhesive is a uniform yellow color with no dark streaks. Keeping Low-VOC Bonding Adhesive warm, as well as using an air-operated mixing paddle, will aid in the mixing process.

### **Coverage Rate**

The coverage rate for Low-VOC Bonding Adhesive is 60 square feet (5.6 m²) per gallon finished surface. A 5-gallon pail should cover approximately 300 square feet (28 m²) of finished area. Coverage rate may vary due to conditions on the jobsite. Porous wall surfaces like masonry block require 2 coats of Low-VOC Bonding Adhesive. Allow first coat to flash off completely prior to applying the second coat at the required coverage rate of 60 square feet per gallon.

## **Application**

- 1. Allow Henry EPDM Membrane to relax for half an hour or longer. Allowing the membrane to relax will result in a smoother finished appearance. This is especially true for sheets that have folds or creases. The surface on or against which Low-VOC Bonding 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 ¼" (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.
- 2. After Low-VOC Bonding Adhesive has been thoroughly mixed, apply to the substrate and membrane using a 9" [228 mm] medium nap roller. Application shall be continuous and uniform, avoiding globs or puddles that could result in solvent blisters. Heavy "wet" areas can be re-rolled to break the skin, allowing the solvents to flash off. The solvents in Low-VOC Bonding Adhesive must be allowed to flash-off until it does not string or transfer to a dry finger touch, but remains tacky. This is called the "tack test". It is recommended to continually monitor Low-VOC Bonding Adhesive for flash-off after the application. Install the membrane immediately after Low-VOC Bonding Adhesive passes the tack test to avoid over-drying. This is especially important on wall applications. In hot weather, flash-off time can occur in as little as 5 minutes or less. Temperature, sun, shade or humidity can affect flash-off time.



- Note: Any coated area that is exposed to rain should be allowed to dry and then recoated. Do not apply Low-VOC Bonding Adhesive to splice areas or use in conjunction with Henry peel and stick products.
- 3. Roll the membrane onto the adhesive-coated substrate while avoiding wrinkles. Immediately brush down the bonded portion of the sheet with a stiff-bristle push broom to achieve maximum contact. For wall applications, use a neoprene type hand roller to ensure maximum contact. If blisters occur from trapped solvent, allow the solvent to naturally dissipate for 4 or 5 days and then re-roll the membrane so it lays flat.

#### **Precautions**

- 1. Review the applicable Safety Data Sheet for complete safety information prior to use.
- 2. Low-VOC Bonding Adhesive 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 Low-VOC Bonding Adhesive to thicken and solidify in the pail. Should 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. Low-VOC Bonding Adhesive will perform as intended once it is returned to a liquid state. When temperatures are expected to be consistently below 40°F, a heated enclosure or hot box is required for storage.
- 3. Low-VOC Bonding Adhesive 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.

- 4. 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 near fresh-air intake units. When possible, shut down or seal off the closest units.
- 5. If swallowed, DO NOT INDUCE VOMITING. Call a physician immediately.
- 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 I5 minutes. Contact a physician immediately.
- 7. 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.
  - Note: To protect hands from irritating ingredients, Henry recommends that applicators wear permeation-resistant gloves (that meet ANSI/ISEA 105-2005) when using this product.
- 8. Do not thin Low-VOC Bonding Adhesive. Thinning will affect performance. Excessively thick or gelled material should be discarded.
- 9. Low-VOC Bonding Adhesive is sensitive to atmospheric moisture; heat will accelerate the effect of moisture. Opened containers of Low-VOC Bonding Adhesive should be used within 48 hours. Low-VOC Bonding Adhesive will begin to thicken after this point, making it difficult, and eventually impossible, to control adhesive 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 Low-VOC Bonding Adhesive occasionally while using.
- 10. Low-VOC Bonding Adhesive must be allowed to flash-off but not become over dry. If membrane is mated with the substrate prior to Low-VOC Bonding Adhesive flashing off, blistering will occur. If membrane is mated with the substrate after Low-VOC Bonding Adhesive has over-dried, loose or unadhered areas will occur. Thin application of Low-VOC Bonding Adhesive increases risk of over-drying.
- 11. KEEP OUT OF THE REACH OF CHILDREN.



# **Typical Properties and Characteristics**

Property	Results
Size	5-gal (18.93 L) pail
Base	Synthetic rubber
Color	Yellow
Solids	22.2%
VOC	250 g/l max
Flash Point	0°F (-17°C) closed cup
Brookfield Viscosity	2600 centipoises
Average Net Weight	8.1 lbs/gal (3.7 kg/gal)
Shelf Life Shelf Life	12 months

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 range for any particular property of this product.

### LEED® Information

Pre-consumer Recycled Content	0%
Post-consumer Recycled Content	0%
Manufacturing Location	Carlisle, PA
VOC Content	<250 g/L

For more information, visit www.henry.com or for technical assistance call us at 800-486-1278. Refer to the Safety Data Sheet prior to using this product. The Safety Data Sheet is available at www.henry.com or by emailing Henry Product Support at productsupport@henry.com or by calling 800-486-1278.

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