

MATRIX™ 103

Cold Process Adhesive

Updated: 8/16



*Quality You Can Trust...From
North America's Largest Roofing Manufacturer!™*



MATRIX™ 103 COLD PROCESS ADHESIVE (1 OF 2)

Safer
Alternative
To Hot
Asphalt/
Easy
Installation

Description

Matrix™ 103 Cold Process Adhesive is a contractor-grade, non-polymer modified asbestos-free formulation for use as a cold-applied bonding agent for organic, fiberglass, or polyester fabric built-up roofing (BUR) systems. In addition, the formulation is non-destructive to asphalt-based roofing membranes. Though combustible, this product requires no “red tag” labeling for fire hazard.

- Safer, more efficient alternative to hot asphalt
- Exclusive SURE GRIP™ technology with superior bonding strength and high flexibility
- Low-odor formulation for a better environment for installer and building occupants
- Easy installation...minimizes the risk of blisters, wrinkles, and other problems often associated with improperly heated asphalt
- Easy application...with sprayer, brush, or notched squeegee and still maintains excellent low-temperature flexibility

Uses

Matrix™ 103 Cold Process Adhesive is a cold-applied adhesive designed (in place of hot asphalt) to adhere:

- Type G1 asphalt-coated glass ply sheets, Type G2 asphalt-coated glass base sheets, 43-lb. (19.5 kg) or heavier organic base sheets, polyester or glass fabrics, organic or glass-reinforced asphalt cap sheets used in built-up roofing systems
- As an insulation adhesive between layers and to a suitable non-nailable roof deck and as a granule adhesive Type G2 asphalt-coated glass base sheet

Approvals & Certification

Matrix™ 103 Cold Process Adhesive is listed and approved by the following agencies or code bodies: Underwriters Laboratories (UL), Factory Mutual (FM). Meets or exceeds the requirements of ASTM D3019 Lap Adhesive used with Asphalt Roll Roofing Type III, ASTM D4479. Approvals may vary by region. Be sure to review pail labels before purchase.

Surface Preparation

All surfaces must be clean, dry, and free from any foreign matter, such as oil, grease, dirt, or debris that could inhibit the bonding capabilities of the adhesive. On existing roofs, inspect roof deck condition; moisture in old roof may require complete removal of existing roof. Check local building codes; local building codes may require complete removal of existing roof. Contact GAF Technical Services for details on cutting out and repairing blisters, buckles, and raised edges for a smooth surface. Check all flashings, edges, drains, valleys, and vents, and repair as needed.

Application

Application Rate: Base, ply, and cap sheets are applied at a rate of 1.5–2 gallons per square (.6–.8 L/m²). Apply insulation at a rate of 3 gallons per square (1.2 L/m²). Apply granules at a rate of 3–4 gallons per square (1.2–1.6 L/m²).

Application: Stir before application. Apply adhesive by sprayer, brush, or notched squeegee at rate indicated for material.

Application Method:

Spray: A Graco 45:1 pump or equivalent is recommended. Consult equipment manufacturer for optimum psi, spray tip size, length of hose, and number of spray guns to achieve uniform application. The adhesive sets by the evaporation of the solvent.

Squeegee: When using a squeegee, it should have 1/4" (6 mm) serrations to apply a uniform, smooth, even coat without gaps, dry areas, or bubbles.

Brush: Apply in a uniform, smooth, even coat without gaps, dry areas, or bubbles.

Attachment: The adhesive sets by evaporation of the solvent. After adhesive application, allow 5–15 minutes cure time before applying insulation, felts, or cap sheets.

Insulation: Set insulation in a full embedment of tacky adhesive, making sure full contact is made. Butt insulation joints tightly. Base and ply sheets: unroll the sheet into the tacky adhesive, making sure that felt is lying flat and making full contact with the adhesive. Make sure a sufficient amount of adhesive is applied so that a bead of adhesive is visible at all lap edges. Broom felts lightly as it is applied to ensure full embedment.

Cap Sheet: Unroll the sheet into the tacky adhesive, making sure that cap sheet is lying flat and making full contact with the adhesive. Roll all side and end laps, making sure a sufficient amount of adhesive is applied so that a bead of adhesive is visible at all lap edges.

Granule Embedment: Apply a uniform coat of adhesive to roof surface and embed granules at the rate of 45 lbs. per square (2.5 kg/m²).



CODE APPROVALS



Cements and coatings for roofing systems as to external fire exposure.

Product Specifications (Nominal)

Weight	8.1 lb (3.6 kg) per gallon
VOC (max)	250 grams/liter
Non-volatile content	50% maximum
SETA Flash Point	110°F (43.3°C)
Sizes	55 gallon/208.2 L



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Application (Continued)

Roof Slope: The roof must have positive drainage. On slopes over $1/2:12$, felts and cap sheets must be back-nailed. Use insulation stops with insulation. Refer to roofing membrane manufacturer for instructions for back-nailing and insulation-stop procedures.

Precautions

Compatibility & Limitations: Do not use with any APP modified products. Do not use with 15- or 30-lb. (6.8–13.6 kg) saturated felt or with solvent-sensitive roof insulation. Do not use on wet or damp surfaces, directly over wood, or on surfaces previously covered with coal tar products. Not recommended for SBS membranes.

Temperature Range: Apply only when temperatures are 45°F (7.2°C) and rising. Cold weather will cause product to stiffen, making application difficult. Store 24 hours at room temperature prior to application. Do not heat container or attempt to thin this product. Not recommended for application on substrates that exceed 140°F (60°C).

Storage/Handling & FIRE WARNING: Matrix™ 103 Cold Process Adhesive is COMBUSTIBLE and should always be kept away from heat, open flame, and any source of ignition. Observe normal safeguards for storing and handling of this product prior to and during application. Do not allow adhesive to freeze.

Important: Repair leaks promptly to avoid adverse effects, including, but not limited to, mold growth.

Clean Up

Keep containers covered when not in use. Clean equipment and overspray with kerosene, mineral spirits, or petroleum naphtha. Clean hands with waterless hand cleaner.

Caution

Matrix™ 103 Cold Process Adhesive contains petroleum distillate.

Ventilation – Use with adequate ventilation and close containers when not in use. If TLV (Threshold Limit Value) is exceeded, respirators are required (NIOSH/OSHA). Inhalation of high vapor concentration may result in headaches and/or dizziness. Remove individual to fresh air and administer oxygen if breathing is difficult. If breathing has stopped, administer artificial respiration, keep victim warm, and order emergency medical attention immediately.

Eye Contact – Rinse immediately with water for 15 minutes and seek medical advice.

Personal Protection – Irritation may result from prolonged or repeated contact with skin. Wear chemical-resistant gloves, protective goggles, and protective clothing, if needed.

Fire Protection – Matrix™ 103 Cold Process Adhesive is COMBUSTIBLE and should always be kept away from heat, open flame, and any source of ignition.

Waste Disposal – Empty containers must be disposed of in an approved landfill in accordance with local, state, and federal regulations.

For Application Questions

Contact GAF Technical Services at 1-800-766-3411 or visit gaf.com.