

Introduction

GAF LRF Adhesive M is a two-component polyurethane low-rise foam adhesive used to adhere a variety of materials to most roof substrates or other insulation boards and fleece-back membranes. Following is general information addressing preparation, application, storage, and disposal.

Safety

Low-rise adhesives should only be applied using the proper personal protective equipment (PPE). Always wear nitrile gloves; safety glasses, face shield, or chemical goggles; and clothing that protects against dermal exposure. Use only in a well-ventilated area. Always consult safety data sheets (SDS) and product data sheets (PDS) on gaf.com before using this product.

Preparation

Canisters Preparation

1. Remove the canisters from the boxes, place the canisters on a firm and level surface, and rock each canister 20–30 times to mix material. (See Figure 1.) Return the canisters to their appropriate boxes and locate and remove the knockouts for hose access.
2. Feed the hoses through the knockouts and attach the hoses to the tanks. Canisters must be in an upright position when connecting hoses and during use. (See Figure 2.)
3. Use the supplied wrench to tighten the fittings ¼ turn past hand-tight. **DO NOT OVER-TIGHTEN.** (See Figure 3.)
4. With the applicator in hand and pointed away from yourself or others, open the canister valves and inspect for leaks.
5. Check the gun face to be sure the ports are not blocked before installing the static mixing tip.
6. Apply a small amount of petroleum jelly (provided) to the valve face to help keep it clean from cured foam or contamination that could block the chemical ports. (See Figure 4.)
7. Double-check that the valves on both tanks are fully opened. (See Figure 5.)
8. When using the adhesive gun for the first time, and with each new kit, point the applicator into a waste container and purge air and adhesive until equal flow is achieved. (See Figure 6.)
9. Engage the handle safety lock on the applicator by rotating the wheel clockwise until it is firmly against the handle. Wipe the face of the applicator and reapply the supplied petroleum jelly to the surface.



Substrate Preparation

- Ensure the substrate is smooth to achieve positive contact between the insulation boards, adhesive, and substrates.
- Keep the application surface free of dust, dirt, and contaminants to achieve proper adhesion.

Application

Best Practices

- Remember the one - (1) minute rule: Once part A and B enter into the static mixing tip, it must be used **within 1 minute**. Longer than 1 minute at 70°F (21°C) may cause the chemical to cure or a blockage in one or both chemical ports to form.
- Equal flow of both part A and part B is required. Ambient and substrate temperature should be 40°F (4°C) and rising. Chemical temperature must be 70–85°F (21–29°C).
- Most problems can trace back to an incorrect chemical temperature creating an uneven flow or a blockage. Partial or complete blockage of one chemical port will result in an unbalanced (A-rich or B-rich) foam.
- With the static mixing tip removed, check that both chemicals flow with equivalent force.
- The adhesive gun is disposable and is not intended for continual reuse. For best results, dispense liquid from hose at least once a week. Use contents within 30 days of initial use.
- If the gun or hoses become clogged, they must be replaced. Adhesive gun kits are available through the distributor where you purchased the canisters.

Ribbon/Bead Application (Insulation/Cover Board)

Our innovative mixing tip supports ribbon or spatter applications. (See Figure 7.)

1. Remove the static mixer tip from the bag and remove the red plug from the inlet of the static mixer tip. Inspect to ensure the rubber gasket is present inside the inlet. (See Figure 9.) Attach the static mixer tip to the applicator and twist ¼ turn clockwise. Rotate static mixer tip so that the outlet fan is in a horizontal position for ribbon application. (See Figure 7.)
2. To apply adhesive, hold the applicator 12–18" above the substrate and fully engage the trigger. NOTE: Failing to fully engage the trigger may result in unexpected coverage rates, delays, or extended reaction and setup times, and, in some cases, an unbalanced dispense ratio of the two components.
3. The ribbon should be applied 1–1.5" wide throughout the application. As application progresses and canister pressures wane, it may become necessary to slow your walking pace to maintain the proper 1–1.5" ribbon.
4. Allow the adhesive to rise slightly before applying insulation or cover board. Do not allow the adhesive top layer to begin to dry or "skin over."
5. Apply ballast to or "walk in" board stock materials to ensure proper contact between the adhered materials and substrate during the critical initial setup period. Broom or roll membrane applications to ensure positive contact between the adhered materials and substrate during the critical setup period.
6. Unused material in adhesive canisters can be saved and applied at a later date.





Spatter Application (Fleece-Back Membrane)

1. Remove the static mixer tip from the bag and remove the red plug from the inlet of the static mixer tip. Inspect to ensure the rubber gasket is present inside the inlet. Attach the static mixer tip to the applicator and twist ¼ turn clockwise. Rotate static mixer tip so that the outlet fan is in a vertical position for spatter application. (See Figure 8 and Figure 9.)
2. To apply adhesive, hold the applicator approximately 18–24" above the substrate and fully engage the trigger. NOTE: Failing to fully engage the trigger may result in unexpected coverage rates, delays, or extended reaction and setup times, and, in some cases, an unbalanced dispense ratio of the two components.
3. Maintain 18–24" height while moving the applicator side to side in a sweeping motion. (See Figure 10.) Proper coverage should cover 80% of the substrate (see images below). As application progresses and canister pressures wane, it may become necessary to slow your walking pace to maintain the proper 80% coverage.
4. Allow the adhesive to rise slightly before rolling on the membrane. Do not allow the adhesive top layer to begin to dry or "skin over."
5. Roll with a weighted roller to ensure proper contact between the adhesive and the membrane during the critical setup period.
6. Unused material in adhesive canisters can be saved and applied at a later date.



Storage

Best Practices

- Canisters should be properly stored and conditioned between 70°F (21°C) and 90°F (32 °C) for 24 hours prior to use and should remain in a warm storage area until ready for use on the rooftop. Optimum chemical temperature is 70–85°F (21–29°C). Ambient and substrate temperature is 40°F (4°C) and rising.
- Storing the adhesive below the recommended application temperature range prior to use can have a negative effect on product performance, which may include reducing the expected coverage rates of the adhesive, delayed or extended reaction and setup times, and, in some cases, an imprecise dispense ratio of the two components.
- In the event the adhesive is exposed to cooler temperatures for an extended period of time, it must be brought back up to the recommended application temperature prior to use. The adhesive should never be allowed to freeze.

Short-Term Storage (<30 Days) Procedure

1. Close the valves on both canisters and remove the static mixer tip.
2. Engage the handle of the applicator over a waste receptacle to relieve the pressure from the hoses. Completely emptying the hoses is not necessary for short-term storage.
3. Engage the handle safety lock to prevent accidental discharge by rotating the wheel clockwise until it is firmly against the handle assembly.
4. Apply petroleum jelly (included) to the face of the outlet ports. (See Figure 4.)
5. Leave the applicator and hoses attached to the canisters during storage.

Long-Term Storage (>30 Days) Procedure

1. Close the valves on both canisters.
2. Engage the handle of the applicator over a waste receptacle to relieve the pressure from the hoses.
3. Once the pressure has been completely relieved, use the supplied wrench to remove the hoses from the canisters.
4. It is recommended to dispose of the applicator and use a new applicator when you resume after long-term storage.

Reusing the Applicator

1. Reusing an applicator is only recommended after less than 30-day storage since initial use and when the applicator has remained connected to the adhesive canisters.
2. With the canister valves closed, check the face of the applicator to make sure the outlet ports are clear of obstructions. If necessary, remove any cured adhesive or chemical from the face of the applicator. Reapply petroleum jelly to the face and outlet port area to prevent further buildup of adhesive. (See Figure 4.)
3. With the applicator in hand and pointed away from yourself or others, open the canister valves and inspect for leaks.
4. Disengage the handle safety lock by rotating the wheel counter-clockwise. Dispense adhesive into a waste container to verify that both components are being dispensed in equal streams. The applicator

is a disposable unit not designed to be reused. If any clogging is visible in the test spray, the applicator should not be used. A replacement applicator should be obtained.

5. If no visible clogging is observed, follow the steps for adhesive application.

Disposal

1. Remove the static mixer tip. Dispense any remaining adhesive into an appropriate waste container. Spray until there is no longer any adhesive from either canister.
2. Add liquid-absorbent material to the waste container prior to disposal.
3. Close the adhesive canister tank valves and relieve any remaining pressure in the applicator and hoses.
4. Use the supplied wrench to remove the hoses from the adhesive canisters and discard.
5. With the hoses removed, point the outlet of the adhesive canister into your waste container and slowly open the valves to ensure no pressure remains. Leave valves open.
6. Once canisters are completely empty and no pressure remains, locate the pressure relief knockout disc near the top of the adhesive canister and penetrate using a non-ferrous punch. (See Figure 11.)
7. Dispose of empty canisters in accordance with applicable federal, state, and local regulations. Check with your local waste disposal service for guidance. Do not incinerate.

For More Information

For full application instructions, please consult the applicable specification manual for the system being installed, available at gaf.com. For additional information on application, contact GAF Technical Support at 1-877-GAF-ROOF or technicalquestions@gaf.com.

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