






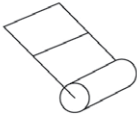
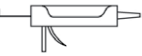


What Tools and Equipment Do I Need to Install a LIBERTY™ Roof?

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| Safety Glasses | Gloves | Hammer | Utility Knife | Trowel | Brush | Tape Measure | Weighted Roller | Caulk Gun |

Installation instructions for plywood decks

For installation on carports, garages, porches, sheds, etc., of 2,000 square feet [185.8 sq. m] or less

NOTE: The LIBERTY™ SBS Self-Adhering Roofing System can be installed as a single-ply system featuring the LIBERTY™ SBS Self-Adhering Cap Sheet over a primed plywood deck and — for even greater durability and weather resistance — as a two-ply system with the addition of the LIBERTY™ SBS Self-Adhering Base/Ply Sheet. The following instructions describe both installation options.

How to prepare for your LIBERTY™ Project

Before you begin, please read these instructions thoroughly to understand how the entire system works, when and where to use each component, and how to avoid common mistakes.

For more information refer to the LIBERTY™ SBS Self-Adhered Manual or call 877-GAF-ROOF.

Where and how to use the LIBERTY™ SBS Self-Adhering Roofing System

- Install on low-sloped roofs with slopes between ½:12 and 6:12 (on slopes greater than 1:12, back-nail the LIBERTY™ SBS Self-Adhering Cap Sheet in the selvage area)
- Install in moderate temperatures between 45°F (7°C) and 95°F (35°C), to ensure proper adhesion
- Install over clean, smooth surfaces that are free of dirt, debris, and damage

Safety first¹

To protect yourself and others, follow common-sense safety precautions, including:

- **Work with a partner** — GAF recommends at least 2 people install LIBERTY™ SBS Self-Adhering Roofing
- **Follow all applicable OSHA and local safety requirements**, including fall protection
- **Wear appropriate clothing**, including protective footwear, eyewear, and gloves
- **Be aware of your surroundings** — watch for power lines when working near ladders and use common sense on your job site

- **Follow local building codes**
- **Bend at the knees** — never lift with your back

LIBERTY™ Roof System materials required

- **FOR TWO-PLY OPTION ONLY: LIBERTY™ SBS Self-Adhering Base/Ply Sheet**, a durable membrane used as a base sheet for the Liberty™ SBS Self-Adhering roofing system. Each roll contains approximately 200 square feet (18.6 sq. m).
- **Matrix™ 307 or LIBERTY™ Premium Asphalt Primer (or ASTM D41 equivalent)** provides a base foundation on your roof deck to promote good adhesion when applying the LIBERTY™ Cap Sheet
- **LIBERTY™ SBS Self-Adhering Cap Sheet** is the first line of defense from the weather. Each roll contains approximately 100 square feet (9.3 sq. m).
- **Matrix™ 201 or LIBERTY™ Premium SBS Flashing Cement (or ASTM D4586 equivalent)** seals laps and T-joints
- **Metal Edge Flashing** for covering roof perimeter edges. Metal flashings are typically sold in 10-foot (3.0 m) sections and must be primed with asphalt primer and allowed to dry before installation.

Step 1: Prepare/Repair the Roof Deck

1. **Remove the existing roof(s)** and inspect the roof deck to determine its suitability and type of preparation required, replacing damaged deck materials as necessary. Minimum 4-ply, 15/32" (12 mm) exterior-grade plywood decking is required. Each plywood panel must be installed so that all four sides are on, and are secured to, joists and cross blocking. Contact GAF Technical Support Services at 1-877-GAF-ROOF for more information on other deck types that may be acceptable.
2. **Poor roof drainage can lead to leaks at the seams.** If water remains on any roof location after 48 hours, repair the deck at that location before installation.

Step 2: Prime the Roof Deck

1. **Tape** all plywood joints with duct tape.
2. **Apply Matrix™ 307 or LIBERTY™ Premium Asphalt Primer (or ASTM D41 equivalent)** at the rate of ½ gallon per 100 sq. ft. (0.20 liters/100 m²).
3. **Allow primer to dry.**

Optional Step for 2-PLY Roofing: Install LIBERTY™ SBS Self-Adhering Base/Ply Sheet

1. **Cut the first roll** to 2/3 width.
2. **Starting at the low point of the roof**, install one ply of Liberty™ SBS Self-Adhering Base/Ply Sheet lapping 3" (76 mm) on sides and 6" (152 mm) on ends.
3. **Fold the bottom half of the sheet back** and remove the release film from this part of the roll. Working from the center of the sheet, carefully roll and hand-press the sheet back into place over the base ply, being careful to avoid wrinkles and trapped air while maintaining proper alignment.
4. **Fold the upper portion of the sheet back** on itself to expose and remove the remaining release film and finish the roll.
5. **Install the upper portion of the roll** working from the center of the sheet outward toward the ends. Firmly hand-press the sheet to avoid wrinkles and trapped air and finish with a weighted roller over the entire sheet to ensure full contact with the insulation. All side and end laps must be staggered and offset from underlying courses a minimum of 6" (152 mm). **NOTE:** End laps should be a minimum of 6" (152 mm), staggered and offset from adjacent courses a minimum of 3' (914 mm).
6. **Cut the selvage (upper) edge** on the overlapping sheet at a 45° angle to provide a tapered transition at the "T" joints formed by succeeding courses.
7. **Remove the release film** from the underside of the overlapping sheet and form the lap without wrinkles or voids. Press firmly and roll this overlap seam with a weighted roller.
8. **Prior to installing succeeding courses**, apply a 3/8" (9.5 mm) bead of Matrix™ 201 or LIBERTY™ Premium SBS Flashing Cement along the top edge of each course and along the 45° angle at all selvage edge "T"-Joints.
9. **Install subsequent courses as detailed above**, carefully working each sheet into the laps without wrinkles or trapped air. Firmly hand-press the sheet and complete the side lap by rolling with a weighted hand roller.

¹ **Precautionary note:** The installation instructions for this product may require the use of primers, adhesives, or cements that contain solvents. Apply solvent-based products ONLY as instructed. Excess application of solvent-based products may affect the performance of this product, delay application of the cap sheet, cause surface blistering of the cap sheet, or result in the asphalt flowing, dripping, or staining. You may notice unpleasant odors from the solvents, which will dissipate when the solvent-based product has dried.

Step 3: Install Edge Flashing

1. **Install edge flashing** at all eave and rake edges in a 1/8" (3.1 mm) bed of SBS roof cement.
2. **Fasten** with two rows of roofing nails staggered 3" (76.2 mm) on center.
3. **Prime** the top of the edge metal, metal drip edge, and any other metal to be covered with LIBERTY™ Cap Sheet, and allow to dry.
4. Immediately before installation of the cap sheet, apply a second bed of SBS roof cement on the exposed flange to adhere to the cap sheet.

Step 4: Install LIBERTY™ SBS Self-Adhering Cap Sheet

1. **Cut the first LIBERTY™ SBS Self-Adhering Cap Sheet** to a manageable length.
2. **Align at the lowest edge of the roof**, overlapping and flush with the outer edge of the drip edge, with the selvage edge (see diagram) at the high side of the roof.
3. **Fold back the top half of the LIBERTY™ Cap Sheet** and remove the split release film (upper half only) from the underside of the Cap Sheet. **DO NOT REMOVE THE SELVAGE FILM.**
4. **Gradually roll the upper LIBERTY™ Cap Sheet** back into place, making sure that the lower edge remains aligned with the drip edge.
5. **Roll the lower portion of the LIBERTY™ Cap Sheet back**, and apply a light troweling of SBS Flashing Cement to the primed metal drip edge and any other primed flashing metal to be covered with the Cap Sheet.
6. **Remove the release film** from the folded-back LIBERTY™ Cap Sheet. Gradually roll the Cap Sheet back into place, making sure it aligns with the metal drip edge.

7. **Apply even pressure**, with a weighted roller, over the entire area of the LIBERTY™ Cap Sheet (from center to edges) to eliminate air bubbles and wrinkles.
8. **Align the next sheet** of LIBERTY™ Cap Sheet, if needed to continue across the roof, overlapping the previous Cap Sheet a minimum of 6" (152 mm). Install as above, except do not adhere the overlapping area. Stagger and offset end laps from adjacent courses a minimum of 36" (914 mm).
9. **Clip the leading edge** of the selvage edge at a 45° angle to provide a "T" joint overlap of the next course. Note: If these seams occur in consecutive courses, offset the laps at least 18" (457 mm).
10. **Lightly trowel SBS Flashing Cement** to the 39 3/8" x 6" (1 m x 152 mm) end lap and set the overlap back into place.
11. **Firmly roll the overlap area** as well as the entire remaining LIBERTY™ Cap Sheet.
12. **Set the next and subsequent courses of LIBERTY™ Cap Sheet**, overlapping 4" (102 mm) of the previous course. Make sure each subsequent course overlaps the selvage edge flush to the bottom edge of the release film on the previous course.
13. **Fold the upper edge of the LIBERTY™ Cap Sheet back onto itself**, exposing one half of the split-back release film. Remove the release film and gradually roll the Cap Sheet back into place.
14. **Remove the selvage edge release film** from the lap area.
15. **Back-nail LIBERTY™ Cap Sheet on slopes of 1:12 or higher**. In the middle of the 4" (102 mm) wide selvage edge, nail on 9" (229 mm) centers, using roofing nails of sufficient length to penetrate through the deck.

16. **Going back to the overlapping LIBERTY™ Cap Sheet**, remove the release film and roll the Cap Sheet into place over the primed deck, and then overlap the lower LIBERTY™ Cap Sheet selvage edge.
17. **Apply even pressure**, with a weighted roller, over the entire roof area of the LIBERTY™ Cap Sheet (from center to edges). Thoroughly roll all laps to ensure proper adhesion.
18. **Seal all edges**, flashing, drip edges, details, etc., with a light troweling of SBS Flashing Cement.

Avoid these common mistakes:

1. Not priming the wood deck can cause the LIBERTY™ Cap Sheet to peel away.
2. Not priming the edge metal can cause the LIBERTY™ Cap Sheet to peel away at the edges. Always prime edge metal before installing Cap Sheet.
3. Not applying cement at the end laps can cause laps to open. All locations where sheets extend over granules **MUST** be set in cement.

Step 5: Cleaning-Up and Maintaining Your LIBERTY™ Roof

1. **Remove all tools**, materials, and debris from the roof.
2. **Dispose of materials properly**, following all federal, state, and local laws.
3. **Inspect the roof at least annually**, and remove any leaves, branches, or vegetation that may be present. Look for other damage and repair if necessary.
4. **Keep gutters clean** to ensure proper water flow and minimize the likelihood of ice dams.

