

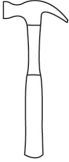




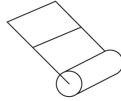




LIBERTY™ SBS Self-Adhering 2-Ply Roofing System:

What Tools and Equipment Do I Need to Install a LIBERTY™ SBS Self-Adhering Roofing System?									
									
Safety Glasses	Gloves	Hammer	Utility Knife	Trowel	Brush	Tape Measure	Weighted Roller	Caulk Gun	Roller

How to Prepare for Your LIBERTY™ Project

Before you begin, 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, please visit gaf.com/LIBERTY or call GAF Technical Services at 877-GAF-ROOF.

Where and How to Use the LIBERTY™ SBS Self-Adhering Roofing System

- For 2-ply system, install on appropriate substrates with slopes between ¼:12 and 3:12.
- Roof area should be 2,500 sq. ft. [185.8 sq. m] or less.
- Ideal installation temperatures should be between 45°F (7°C) and 95°F (35°C) to ensure proper adhesion.
- Install over clean, smooth, dry surfaces free of dirt, debris, and damage.
- Appropriate substrates include:**
 - Untreated, Exposure 1, Exterior Grade APA-rated plywood or OSB.
 - Tongue and groove edges or full blocking required.
 - Dimensional tongue and groove wood plank.
 - Should be compliant with local building codes.

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.
- Follow local building codes.**
- Wear appropriate (PPE) personal protective equipment,** including but not limited to protective footwear, eyewear, and gloves.

- Be aware of your surroundings;** identify and stay clear of power lines and other potential hazards.
- Be familiar with the product data sheets.**

LIBERTY™ Roof System Materials Required

- LIBERTY™ Asphalt Primer or MATRIX™ 307 Asphalt Primer** complying with ASTM D41
- LIBERTY™ Self-Adhering Base/Ply Sheet;** each roll is approximately 200 sq. ft. (18.6 sq. m).
- LIBERTY™ Flashing Cement or MATRIX™ 201 Premium SBS Flashing Cement** complying with ASTM D4586 seals laps and T-joints.
- LIBERTY™ Self-Adhering Cap Sheet;** each roll is approximately 100 sq. ft. (9.3 sq. m).
- 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.
- Wood Fiber Cant Strips**
- Roofing nails**

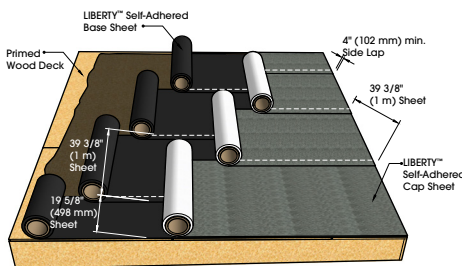


Figure 1

Step 1: Prepare/Repair the Roof Deck

- Remove the existing roof(s)**
 - Inspect the roof deck** to verify it meets the minimum deck requirements identified above.
 - Replace** the damaged deck with like materials as necessary.

- New construction installations**

- Inspect the roof deck** to verify it meets the minimum deck requirements identified above.

Step 2: Prime the Roof Deck

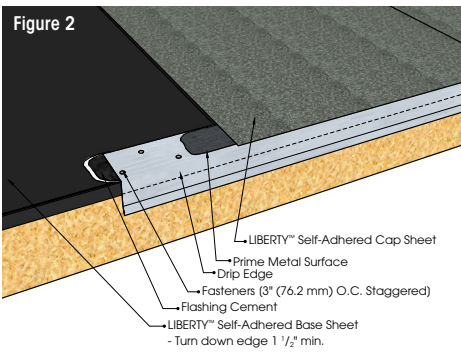
- Apply LIBERTY™ Asphalt Primer (or ASTM D41 equivalent)** at the rate of ½ gallon per 100 sq. ft. (0.20 liters/100 m²).
- Allow the primer to dry.

Step 3: Install LIBERTY™ Self-Adhering Base/Ply Sheet

- Cut length to manageable length** (a length that allows for a wrinkle free installation), 10' suggested.
- Cut the first roll (starter course)** to ½ width of the roll; 19 ½".
- Starting at the low point of the roof,** install the first course off Base/Ply Sheet overlapping 6" (152 mm) on ends to complete the first course.
- Extend past all roof edges** and cover the exposed vertical edges 1 ½".
- While holding the membrane in position,** remove the release film from left to right or right to left. Carefully hand-press the sheet into place, avoiding wrinkles and trapped air while maintaining proper alignment.
- Continue with the first course,** across the length of the roof, overlapping each 10 foot length by 6" (152 mm).
- At each 6" (152 mm) end lap,** cut the top and bottom corners of the bottom sheet at a 45-degree angle, and cut the top corner of the top sheet at a 45-degree angle. Install the upper portion of the roll just as the bottom half was installed, working from the center of the sheet outward toward the ends. Firmly hand-press the sheet to avoid wrinkles and trapped air.

8. **Complete the installation of the first course** with a weighted roller over the entire sheet to ensure full contact with the deck.
9. **Align the next sheet (second and succeeding courses)**, as needed, to complete the roof, overlapping the previous Base/Ply sheet by a minimum of 3" (76.2 mm). Install as above. Stagger or offset end laps from adjacent sheet to a minimum of 36" (914 mm).
10. **Carefully work 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 roller.

Step 4: Install Metal Edge Flashing



1. **Prime** the top and bottom of the horizontal flange of the edge metal and allow it to dry.
2. **With a trowel, apply LIBERTY™ Flashing Cement** to the LIBERTY™ Base/Ply Sheet where the top flange of the edge metal will be nailed.
3. **Set the edge metal into the LIBERTY™ Flashing Cement.**
4. **Fasten the edge metal** with two rows of roofing nails staggered at 4" (101.6 mm) on center. Do not nail through the overlap.
5. **Overlap each 10-foot length of edge metal** approximately 2" (50.5 mm). Do not nail through the 2" overlap.
6. **Install the LIBERTY™ Cap Sheet**, over the primed edge metal, approximately 1/4" from the edge of the metal.

Step 5: Curb, Wall, and Shingle Transitions and Flashings — Base/Ply Sheet

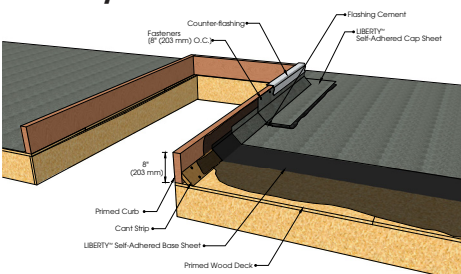
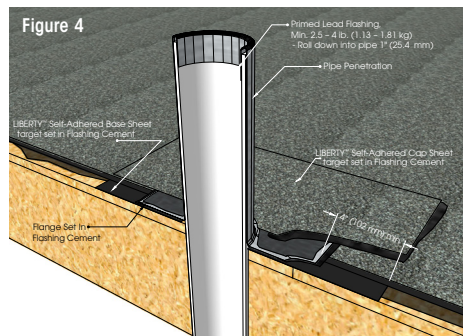


Figure 3

1. **Prior to installing the LIBERTY™ Cap Sheet**, the Base/Ply Sheet is to be installed at all flashings.
2. **Walls, curbs, and shingle roof decks** must be primed with LIBERTY™ Asphalt Primer complying with ASTM D41.
3. **Cant strips are to be installed** at all 90-degree transitions, such as walls and curbs. Transitions greater than 90-degrees, such as shingle tie-in, do not require a cant strip.
4. **Cant strips to be set in place** without any securement, loose laid.
5. **Cut the Base/Ply Sheet** to extend 4" out onto the roof deck and a minimum of 8" up or to the top of curbs and walls.
6. **Remove the release film** and firmly hand-press the sheet to avoid wrinkles and trapped air.
7. **Continue the length** of wall, curb, and shingle transition, overlapping the selvage edge 4".

Step 6: Pipe Penetration Flashing

When necessary

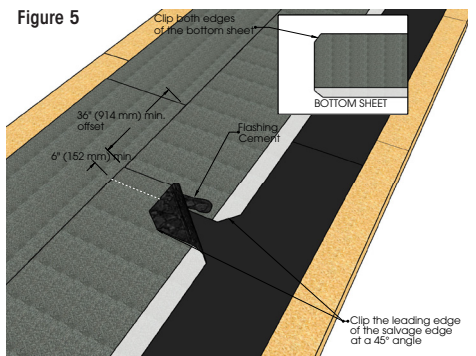


1. **Prime the top and bottom** of the horizontal flange of lead flashing with LIBERTY™ Asphalt Primer, complying with ASTM D41.
2. **With a trowel, apply LIBERTY™ Flashing Cement** to the LIBERTY™ Base/Ply Sheet where the top flange of the flashing metal will be installed.
3. **Install the lead flashing** over the penetration and into the LIBERTY™ Flashing Cement on the LIBERTY™ Base/Ply Sheet.
4. **Install a target of LIBERTY™ Base/Ply Sheet** over the lead flange, extending 6" beyond all edges.
5. **Install the LIBERTY™ Cap Sheet** over the LIBERTY™ Base/Ply Sheet.

Step 7: Install LIBERTY™ Self-Adhering Cap Sheet

1. **Cut a full-width roll (39 5/8")** of the first Cap Sheet to a manageable length. Make sure the length is 36" shorter than the Base/Ply Sheet to create the required 36" stagger.
2. **Start at the low point of the roof** and align with the edge metal, with the selvage edge (see figure 1) at the high side of the roof.

3. **Fold back the top half of the Cap Sheet** and remove the split-release film (upper half only) from the underside of the Cap Sheet. Do not remove the release film from the selvage edge.
4. **Gradually roll the upper half of the Cap Sheet** back into place, making sure that the lower edge remains aligned with the drip edge.
5. **Remove the release film** from the folded-back Cap Sheet. Gradually roll the Cap Sheet back into place, making sure it aligns with the metal drip edge.
6. **Apply even pressure** with a weighted roller, over the entire area of the Cap Sheet (from center to edges) to eliminate air bubbles and wrinkles.
7. **Align the next sheet** of Cap Sheet as needed, to complete the first course across the roof, overlapping the previous Cap Sheet a minimum of 6" (152mm). Prepare the end lap just as the Base/Ply Sheet end lap was prepared above, except do not adhere to the overlapping area. Stagger the end laps from adjacent courses by a minimum of 36" (914 mm).



8. **Lightly trowel Flashing Cement** to the 39 3/8" x 6" (1 m x 152 mm) end lap and set the overlap back into place.
9. **Complete the installation of the first course** with a weighted roller over the entire sheet to ensure full contact with the deck.
10. **Firmly roll the overlap area**, as well as the entire remaining Cap Sheet.
11. **Set the subsequent courses of Cap Sheet**, overlapping 4" (102 mm) of the previous course. Make sure each following course overlaps the selvage edge flush to the bottom edge of the release film on the previous course.
12. **Remember to apply Flashing Cement** to the top edge of the previous course of the LIBERTY™ Cap Sheet.
13. **Fold the upper edge of the 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. **Going back to the overlapping Cap Sheet**, remove the release film and roll the Cap Sheet into place over the LIBERTY™ Base/Ply Sheet, and then overlap the lower Cap Sheet selvage edge.
16. **Apply even pressure**, with a weighted roller, over the entire roof area of the Cap Sheet (from center to edges). Thoroughly roll all laps to ensure proper adhesion.
17. **Cap Sheet shall extend up** the face of the cant strip and onto the wall/curb 2" and up the shingle transition a minimum of 8".

Step 8: Curb, Wall, and Shingle Transitions and Flashings — Cap Sheet

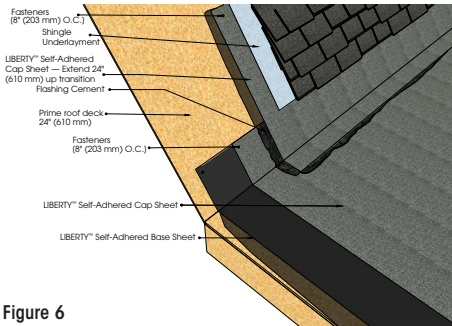


Figure 6

1. **Prime the LIBERTY™ Cap Sheet** installed in the field of the roof 6" (152 mm) out onto the horizontal surface.
2. **Cut the Cap Sheet into manageable lengths.**
3. **Cut the LIBERTY™ Cap Sheet to the proper width** to extend to the top of the wall, curb, or 8" up the shingle transition. (See Figure 3 and 6)
4. **Secure with roofing nails 6" (152 mm) on center.**
5. **If the wall or curb is taller than** the width of the membrane, nail off the top of the membrane 6" on center.
6. **Apply asphalt primer to the top 6" (152 mm) of** the LIBERTY™ Cap Sheet, allow to dry, and install another course(s) of LIBERTY™ Cap Sheet, and secure each course with roofing nails 6" (152 mm) on center.
7. **Install unit on top of the curb or terminate** the top of the wall with the appropriate metal counterflashing.

Step 9: 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, vegetation, or other debris that may be present. Look for other damage and repair as necessary.

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.