



***gaf.com***

# LIBERTY™

## SBS Self-Adhering Roofing System

## Single-Ply Installation Instructions For Plywood

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

### How Do I Prepare for a LIBERTY™ Project?

**Before You Start...** the installation of your new LIBERTY™ SBS Self-Adhering Roofing, do the following:

- **Read Instructions Thoroughly...** and understand how the entire system works before starting your installation.
- **Understand the Materials...** know when and where to use each component, why each is necessary, and the common mistakes to avoid.
- **For More Details on Specific Applications, Contact GAF Technical Services...** at 1-800-ROOF-411.

#### Do's And Don'ts...

- **Do Install on Low-Sloped Roofs with Slopes Between ½:12 and 6:12...** and back-nail the LIBERTY™ SBS Self-Adhering Cap Sheet when the slope is greater than 1:12.
- **Do Install in Moderate Temperatures...** between 45°F (7°C) and 95°F (35°C), to ensure proper adhesion and easier work conditions.
- **Do Install over Clean, Smooth Surfaces...** that are free of dirt, debris, and damage, or are otherwise unsuitable for installation.
- **Don't Work Alone...** GAF recommends at least 2 people install LIBERTY™ SBS Self-Adhering Roofing.

#### SAFETY FIRST... Protect yourself and others. Consider the following common-sense safety precautions, including:

- Follow all applicable OSHA and local safety requirements, including fall protection requirements.
- 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.

**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.

#### Look for these important safety symbols



Wear Glasses



Wear Gloves



Common Mistakes and How to Avoid Them

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



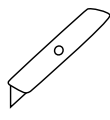
Trowel



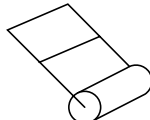
Gloves



Hammer



Utility Knife



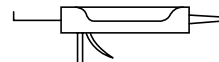
Weighted Roller



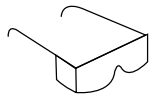
Brush



Tape Measure



Caulk Gun

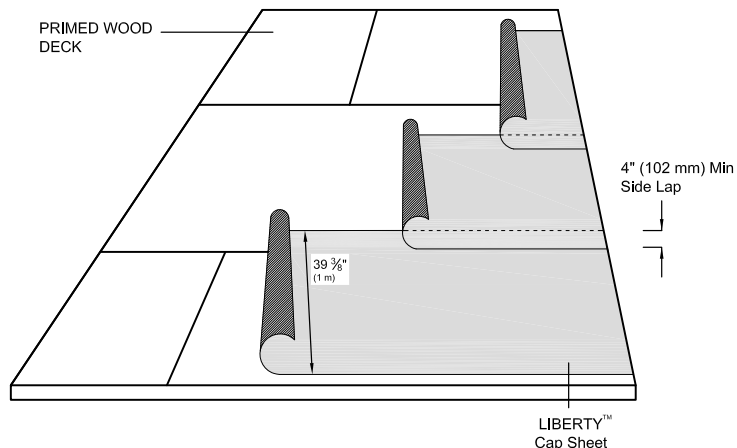


Safety Glasses

### LIBERTY™ Single-Ply Roof System Materials... What Products Do I Need to Install a Quality Roof?

- **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).
- **Asphalt Primer (ASTM D41 type)...** is the base foundation on your roof deck to promote good adhesion when applying the LIBERTY™ Cap Sheet.
- **SBS Flashing Cement...** for 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.

### LIBERTY™ Single-Ply Roof System





## STEP 1

### Preparing for a LIBERTY™ Single-Ply Roof System Installation

- **Remove All Existing Roofs...** 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 Services at 1-800-ROOF-411 for more information on other deck types that may be acceptable.
- **Poor Roof Drainage...** can lead to leaks at the seams. Before installation, fix the roof deck at locations where water remains after 48 hours.



## STEP 2

### Priming the Roof Deck

- **Prime the Deck...** by applying an ASTM D41-type asphalt primer as the base foundation coat to ensure proper adhesion of the LIBERTY™ SBS Self-Adhering Cap Sheet. Prior to priming, tape all plywood joints with duct tape. Prime plywood deck with ½ gallon per 100 sq. ft. (0.20 liters/100 m²) and allow primer to dry.



## STEP 3

### Installing Edge Flashing

- **Install Edge Flashing...** at all eave and rake edges in a 1/8" (3.1 mm) bed of roofing cement and fasten with two rows of roofing nails staggered 3" (76.2 mm) o.c. Prime the top of the edge metal and allow to dry before installing LIBERTY™ SBS Self-Adhering Cap Sheet.



## STEP 4

### Installing 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.
3. The LIBERTY™ Cap Sheet must be positioned with the selvage edge at the high side of the roof.
4. Prime metal drip edge and any other metal to be covered with LIBERTY™ Cap Sheet.
5. 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.

6. Gradually set the upper LIBERTY™ Cap Sheet back into place by "rolling," not "flopping"... making sure that the lower edge remains aligned with the drip edge. **DO NOT REMOVE THE SELVAGE FILM.**
7. 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.
8. 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.
9. Using a weighted roller, apply even pressure over the entire area of the LIBERTY™ Cap Sheet (rolling from center to outer edges) to eliminate air bubbles or wrinkles.
10. If an additional length of LIBERTY™ Cap Sheet is needed to continue across the roof, align the next sheet of LIBERTY™ Cap Sheet so as to overlap the previous Cap Sheet a minimum of 6" (152 mm). Install as above, except do not adhere the Cap Sheet in the overlap area. Clip the leading edge of the selvage edge at a 45° angle to provide a better "T" joint overlap of the next course. Note: If these seams occur in consecutive courses, offset the laps at least 18" (457 mm).

11. Apply a light troweling of SBS Flashing Cement to the 39 3/8" x 6" (1 m x 152 mm) end lap and set the overlap back into place.
12. Firmly roll the overlap area as well as the entire remaining LIBERTY™ Cap Sheet.
13. Set the next and subsequent courses of LIBERTY™ Cap Sheet positioned to overlap 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.
14. 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.
15. Remove the selvage edge release film from the lap area.

16. Back-nail LIBERTY™ Cap Sheets 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.
17. 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.
18. Using a weighted roller, apply even pressure over the entire roof area of the LIBERTY™ Cap Sheet (from center to edges) to eliminate air bubbles or wrinkles. Thoroughly roll all laps to ensure proper adhesion.
19. All edges, flashing, drip edges, details, etc., must be sealed with a light troweling of SBS Flashing Cement.
20. Remove wrinkles in the LIBERTY™ Cap Sheet. They should be cut out and covered with a piece of Cap Sheet set in a light, uniform application of SBS Flashing Cement. That cover should extend at least 6" (152 mm), in all directions, beyond the cut-out area.



### Common Mistakes (and How to Avoid Them)...

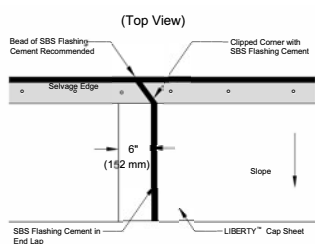
- **Not Priming the Edge Metal...** can cause the LIBERTY™ Cap Sheet to peel away at the edges. Always prime edge metal before installing Cap Sheet.
- **Not Applying Cement at the End Laps...** can cause laps to open. All locations where sheets extend over granules **MUST** be set in cement.



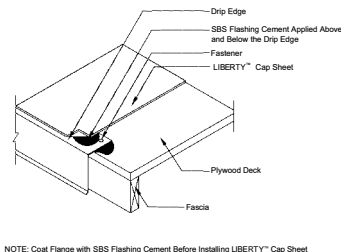
## STEP 5

### Cleaning Up and Maintaining Your LIBERTY™ Roof

- **Remove All Tools and Materials From the Roof...** and make sure there is no debris that can slow or stop the flow of water.
- **Dispose of Materials Properly...** following all federal, state, and local laws.
- **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.
- **Keep Gutters Clean...** to ensure proper water flow and minimize the possibility of damaging ice dams.

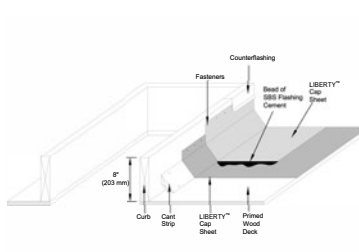


End Lap

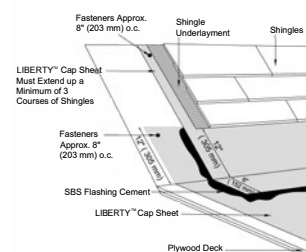


NOTE: Coat Flange with SBS Flashing Cement Before Installing LIBERTY™ Cap Sheet

Edge Flashing



Wall-Curb Flashing



Shingle Tie-In