

# UnderRoof™ 2 Leak Barrier

## Application Instructions for Wood Decks Under Tile Roofs

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# UNDERROOF™ 2

## Waterproof Protection Under Tile Roofs

### UnderRoof™ 2 Leak Barrier

#### Application Instructions for Wood Decks Under Tile Roofs

##### Materials:

- UnderRoof™ 2 Leak Barrier
- Utility knife
- Chalk line
- Topcoat® Matrix™ 201 Premium SBS Flashing Cement or equal
- Trowel
- Nails with 1" integral heads
- Broom
- Silicone coated hand roller
- Topcoat® Matrix™ 307 Premium Asphalt Primer or equal

##### Acceptable Slopes:

- 2:12\* (9.5°) – 12:12 (45°)

##### Acceptable Substrates:

- Plywood or OSB - (15/32" min. – 12mm).\*\*
- Wood Plank (1" min. – 25.4mm).\*\*
- Deck-Armor™ Roof Deck Protection, #30 Roofing Felt, or other acceptable synthetic underlayment (sometimes referred to as base sheet or anchor sheet). Call Contractor Services at 1-800-766-3411 with questions or for additional information on acceptable substrates.
- **Do not install over existing shingles or other roof coverings.**
- Verify that the substrate complies with tile roofing manufacturer's and local code requirements.
- **Do Not** use UnderRoof™ 2 Leak Barrier under metal roofs. Only UnderRoof™ HT High Temperature Leak Barrier or GAF StormGuard® Leak Barrier are suitable for use with metal roof coverings\*. Contact Technical Services at 1-800 766-3411 or visit [www.gaf.com](http://www.gaf.com) for metal roof leak barrier application instructions.

##### What to do before you begin...

1. **Read these instructions...** they will help you install a watertight installation.
2. **Make certain...** you have all the required accessories and tools to be able to complete the job.
3. **Check the temperature...** install only when the outside temperature is 45°F (7°C) or greater and rising.
4. **Examine the deck or substrate...** Make sure the surface is clean, dry and free of debris. Any debris or dirt will interfere with adhesion and may lead to a leak. Wrinkles or damage in underlayment sheet must be repaired prior to the installation of UnderRoof™ 2 Leak Barrier.
5. **Examine the substrate for defects...** repair where necessary.
  - **Note:** Gaps in the deck greater than 1/4" (6mm) require 32 ga. sheet metal overlay nailed at 3" (76mm) o.c.
6. **Leave the release liner in place...** until you are ready to adhere the membrane to the deck or substrate.
7. **Check for specific requirements...** consult the tile manufacturer's installation instructions for specific requirements for underlayment at all eave and rake edges and any penetrations.
8. **Safety note...** any time installation takes you near the edge of the roof, use special safety precautions. Refer to your company safety manual for guidelines.

\* Slope requirements for different tile applications may vary. Consult the tile roofing manufacturer's application instructions or local code authorities for slope requirements on self-adhering underlayments and the tile system you are installing.

\*\* Including plywood or oriented strand board (OSB) faced nail board insulation that are acceptable to the tile roofing manufacturer.



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### Application – UnderRoof™ 2 Leak Barrier as a Tile Roof Leak Barrier

#### Underlayment Sheets and Fire Barriers

An underlayment may be installed over the deck prior to the application of UnderRoof™ 2 Leak Barrier. Where an underlayment is desired or required by code, install the underlayment following the underlayment application instructions.

Leak barriers installed in conjunction with underlayment must be installed the same day. If underlayment is left exposed, dust and debris may impede the adhesion of the leak barrier to the underlayment, adversely affecting the performance of the roofing system. If the underlayment has been left exposed, contact GAF technical services at 1-800-766-3411 for recommendations.

An additional fire barrier sheet such as VersaShield® Underlayment may be desired or required by code. This should be installed first under the underlayment following the fire barrier application instructions.

#### Drip Edge

1. **Where an underlayment...** is in place on the deck, a primed metal drip edge (prime with Topcoat® Matrix™ 307 Premium Asphalt Primer) may be installed along the eave and rake, over the underlayment. On top of the underlayment and under the metal drip edge install a precut 9" (229mm) piece of UnderRoof™ 2 Leak Barrier as a flashing, by adhering the leak barrier to the underlayment. Next, install the drip edge, stagger nailing every 8" – 10" (203 – 254mm) or as required by local code. Apply a 1/16" (2mm) to 1/8" (3mm) even troweling of Topcoat™ Matrix™ 201 Premium SBS Flashing Cement on top of the flashing strip of UnderRoof™ 2 Leak Barrier just above the top edge of the metal drip edge. Adhere the UnderRoof™ 2 Leak Barrier field sheet over the primed metal drip edge. Firmly roll the field sheet with a hand roller along the drip edge.

– **Note:** The use of PVC coated metal drip edges may cause dripping or staining of asphaltic compounds.

2. **Where no underlayment...** is installed, install a precut 9" (229mm) piece of UnderRoof™ 2 Leak Barrier as a flashing strip by adhering the leak barrier directly to the deck... Next, install the drip edge, stagger nailing every 8" – 10" (203 – 254mm) inch or as required by local code. Apply a 1/16" (2mm) to 1/8" (3mm)

even troweling of Topcoat™ Matrix™ 201 Premium SBS Flashing Cement on top of the flashing strip of UnderRoof™ 2 Leak Barrier just above the top edge of the metal drip edge. Adhere the UnderRoof™ 2 Leak Barrier field sheet over the primed metal drip edge. Firmly roll the field sheet with a silicone hand roller along the drip edge to ensure sealing.

**Alternate High Wind Drip Edge Detail:** Start at the low edge of the roof. Snap a chalk line to aid in placement of the first course that will allow for a minimum of a 2" (51mm) overhang over the eave. (Be sure that UnderRoof™ 2 Leak Barrier will not be exposed after placement of drip edge.) Position the membrane so that the roll is perpendicular to the eave edge and the selvedge edge is on the high side of the roof. Align top edge of the sheet to the chalk line (earlier step), remove the release liner from the lower half and roll in the sheet. Fold the overhanging 2" (51mm) over the eave and nail into place, one fastener every 12" (305mm). The UnderRoof™ 2 Leak Barrier should also over hang the rake by 2" (51mm) and be nailed every 12" (305mm). Install the primed drip edge and fasten the drip edge every 8" (203mm) staggered on center. Complete the high wind detail by installing a 1/8" (3mm) troweling of Topcoat® Matrix™ 201 Premium SBS Flashing Cement over the drip edge.

#### Roof Deck... The First Course

##### For Slopes 2:12 to < 4:12

1. **Start at the low edge...** of the roof. Snap a chalk line to aid in placement of the first course that will allow for proper alignment at eave and rake. Position the membrane so that the roll is perpendicular to the eave edge and the selvedge edge is on the high side of the roof. Cut the membrane into a workable length [approximately 10' - 20' (3 - 6 m)]. Align top edge of the sheet to the chalk line, remove the release liner from the lower half and roll in the sheet. For "Alternate High Wind Drip Edge Detail," fold the overhanging 2" (51mm) over the eave and rake, nailing it into place, using one fastener every 12" (305mm).
2. **Proceed to the top...** half of the first course. Fold over the top half of the sheet lengthwise from the roof edge. Use care to keep the sheet straight.

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3. **Peel the release film...** from this half of the sheet. It peels easiest when pulled at a 45° angle along the length of the roll. **Avoid** touching the adhesive as you remove the film.
4. **Roll in top half of the membrane...** keeping the sheet rounded as it adheres to the substrate. Once the entire sheet is installed, broom the sheet to assure proper adhesion.
5. **Work carefully...** if the membrane runs off of the proper alignment by more than 1/4" (6mm), cut and restart the membrane installation.

### For Slopes 4:12 - 12:12

Install UnderRoof™ 2 Leak Barrier as above. Use additional side lap fastening: Install one 1" (25.4mm) square or round metal headed nail every 12" (305mm) o.c. in the center of the selvage.

For UnderRoof™ 2 Leak Barrier a selvage film is present. Remove the release liner on the selvage side prior to installing fasteners in the selvage edge. Use care in aligning and installing the second course to avoid contaminating the selvage edge once the release liner is removed.

### Roof Deck... Subsequent Courses

1. **Position subsequent courses...** using the 4" (102mm) selvage edge to line up the membrane. If the selvage edge is exposed from installing fasteners, be careful not to contaminate the selvage edge.
2. **If the selvage edge release liner is still in place...** remove the release liner and install the subsequent course in the same way as the first course.
  - **Note:** Helpful hint – Tack down the top side of the subsequent sheet with roofing nails to keep the sheet in line. Be sure to remove the nails before installing any subsequent courses.
3. **Be sure...** to firmly roll the lap area with a silicone coated roller to ensure sealing.

### Roof Deck... End Laps

End laps occur when you have to start a new roll in the same course or if you are using shorter lengths for ease of handling. End laps should be staggered at least 3' (0.9m) in adjacent courses to prevent them from "lining up". End laps should be a minimum of 6" (152mm).

1. **Align the new sheet...** so that it overlaps the previous sheet 6" (152mm).
2. **At the overlap...** fold the sheet back to a point 12" (304mm) from the end of the roll.
3. **Score the release...** liner, leaving the 12" (304mm) section in place. Be sure to score the release liner of the selvage edge at the same point.
4. **Install the balance...** of the membrane as you normally would.
5. **Return to the end lap...** area and fold back that portion of the membrane where the release liner is still in place.
6. **Apply TopCoat® Matrix™ Premium SBS Flashing Cement...** in the 6" (152mm) area of the bottom sheet forming the end lap. Trowel to an even thickness approximately 1/16" (2mm) to 1/8" (3mm) thick.
7. **To complete the end lap...** remove the release film from the back of the top sheet, the 12" (304mm) piece left in place in previous step. Set the top sheet into adhesive and firmly roll the sheet with a silicone coated roller to ensure sealing.

### Ridges & Hips

1. **Install a full width sheet...** of UnderRoof™ 2 Leak Barrier centered over the ridge or hip to form a cap overlapping the courses of UnderRoof™ 2 Leak Barrier by at least 6" (152mm).
2. **If the ridge is to be vented...** terminate the field sheets of UnderRoof™ 2 Leak Barrier at the ridge opening. Fasten each sheet of leak barrier with one 1" (25.4mm) square or round metal headed nail every 12" (305mm) o.c. across the top edge of the sheet.

### Valleys...

Where two roof sections meet, install a full 39 3/8" (1m) width of UnderRoof™ 2 Leak Barrier in a continuous length from the bottom to top of the valley. Where additional lengths are required, overlap seams at end laps a minimum of 6" (152.4mm) and seal with Topcoat® Matrix™ 201 SBS Premium Flashing Cement.

1. **With the membrane centered in the valley...** the 4" (101.6mm) selvage edge will be present on one side and the polyester surfacing will be in place on the opposite side. On the side without the selvage edge, snap a chalk line 6" (152.4mm) in from edge of the sheet.

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2. **Install the side...** with the 6" (152.4mm) lap in a troweling of Topcoat® Matrix™ 201 Premium SBS Flashing Cement. Install the field membrane into the valley on the 4" (101.6mm) adhesive lap as you would a side lap.

### Pipe Penetrations

When using lead flashings, they must be primed. Membrane finger flashings are **not** acceptable.

1. **Cut a piece of leak barrier membrane...** so that it will extend 6" (152.4mm) past the penetration flange in all directions.
2. **Install a flashing strip...** directly to the roof deck or base sheet.
3. **Install an even troweling...** of Topcoat® Matrix™ 201 Premium SBS Flashing Cement approximate 1/8" (3.2mm) thick over the leak barrier membrane flashing piece.
4. **Install the primed lead...** flange or pipe flashing.
5. **Position the field sheet over the pipe flange...** remove the release liner. Press into place and firmly roll with a silicone coated roller to ensure sealing.

### Vertical Walls

1. **At vertical walls...** install the field membrane so that it extends up the wall a minimum of 5" (127mm). Then cut pieces of UnderRoof™ 2 Leak Barrier so that they will extend a minimum of 5" (127mm) up the wall and 5" (127mm) to 6" (152mm) on to the roof surface.
2. **Position the flashing...** membrane in place and remove release liner. Press into place on the vertical surface and firmly roll the area with a silicone coated roller to ensure sealing.
3. **At the field...** embed the flashing sheet in a troweling of Topcoat® Matrix™ Premium SBS Flashing Cement approximately 1/8" (3.2mm) thick.
4. **Fasten the UnderRoof™ 2 Leak Barrier...** to the walls placing nail a minimum of 8" (203mm) on center.
5. **Complete the flashing...** with appropriate counter flashing.

### Skylights, Hatches and Chimneys

1. **Install the field...** of the roof so that it extends up on the penetration a minimum of 5" (127mm). Then cut pieces of UnderRoof™ 2 Leak Barrier so that they will extend a minimum of 5" (127mm) up the penetration and 5" (127mm) to 6" (152mm) on to the roof surface.
2. **Position the flashing membrane...** in place and remove release liner. Press into place on the vertical surface and firmly roll the area with a silicone coated roller.
3. **At the field...** embed the flashing sheet in a troweling of Topcoat® Matrix™ 201 Premium SBS Flashing Cement approximately 1/8" (3.2mm) thick.
4. **Fasten the UnderRoof™ 2 Leak Barrier...** to the walls placing nail a minimum of 8" (203mm) on center.
5. **Complete the flashing...** with appropriate counter flashing.

### Construction details are available at [www.gaf.com](http://www.gaf.com)

**Note:** To avoid leaks when using UnderRoof™ 2 Leak Barrier... wherever the adhesive back comes in contact with polyester surfacing, such as at end laps, penetrations and flashings, material **MUST BE** set in a 1/8" troweling of Topcoat® Matrix™ 201 Premium SBS Asphalt Flashing Cement.

**Precautionary Note:** The application instructions for this product require the use of adhesives or cements that contain solvents. Apply these adhesive/cements **ONLY** as instructed. Application of excess solvent-based adhesives or cements may affect the performance of this product, resulting in the asphalt flowing, dripping and staining.

**Important Information:** This product may be suitable for use as a secondary water barrier for hurricane mitigation requirements. Contact Technical Services at 1-800-766-3411 for further information on this or any other specific code requirements.

Topcoat® Matrix™ products were formerly referred to as LeakBuster™ Matrix™ products.



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