

Directions for Applying GAP WaterGuard Rain & Ice Protection Underlayment

GENERAL INSTRUCTIONS

Install GAP Roofing, WaterGuard Rain & Ice underlayment according to adopted building code requirements.

We assume no responsibility for damage to the underlayment or water damage to the roof deck or building interior prior to installation of the finished roofing system, or for leaks due to improper application or failure to properly prepare the surface.

IMPORTANT

- ALWAYS wear fall protection when working on a roof.
- All underlayments can be slippery, particularly when wet or covered with frost.
- Do not walk on the membrane until it bonds to the substrate.

PRODUCT DESCRIPTION

Product Use: WaterGuard Rain & Ice is a specially designed and manufactured, *self-adhering* underlayment for use on steep slopes and as a flashing membrane in areas susceptible to leaks, such as valleys, roof-to-wall transitions, and around vents, curbs, skylights and other roof penetrations.

It is ideal for low-slope applications (2" to 4" per 12") that demand complete roof coverage and protection, particularly along the eaves; in fact, its application is required by many building codes in cold weather climates (where icing along the eaves is anticipated or where the average January temperature is 25°F or less¹) or areas of high wind to prevent moisture intrusion caused by ice dams and wind-blown rain.

Composition and Materials: WaterGuard Rain & Ice is manufactured on a durable fiberglass mat with a SBS polymer modified asphalt top coating and surfaced with a sand release agent that resists wear and improves footing. The bottom coat is an aggressive asphalt-based adhesive and protected with a factory-applied, split-release plastic film that is removed during installation.

(See Figure 1)

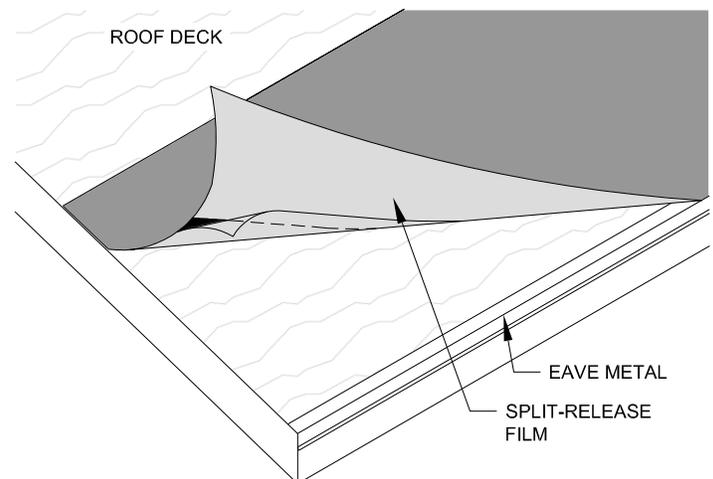


Figure 1 - One Side of the Split-Release Film Overlaps the Other for Easy Removal

WaterGuard Rain & Ice meets the requirements of ASTM D1970, *Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection*.

Precautions: WaterGuard Rain & Ice requires dry, well-ventilated storage and protection from the weather. Store the rolls on end.

Roof decks should be sound, smooth (free of protrusions), meet necessary local requirements, provide positive drainage, and be dry at the time of installation. The presence of moisture can affect the adhesion of the membrane.

Sweep dirt and debris from the roof deck. Minimum approved slope is 2" per 12".

If installing in cooler temperatures, unroll the membrane, cut into manageable lengths (10' to 15' long), and lay them out to relax before installing. Storage conditions and temperatures will determine how long this might take, so times will vary. Failure to allow WaterGuard Rain & Ice to fully relax can result in wrinkles of the membrane once it warms up.

¹ Residential Asphalt Roofing Manual, 2014 Edition, Asphalt Roofing Manufacturers Association.

The warmer the weather, the more aggressive the adhesive. Elevated temperatures can also affect the ability to remove the release film, and too cold can prevent the membrane from fully adhering to the roof deck. *In most instances, proper application is better, more easily accomplished with two installers.*

If necessary, WaterGuard Rain & Ice can be nailed in place with fasteners or the adhesive activated by heat welding. Use only enough fasteners to hold the material in place and work safely (or per adopted building code) until shingles are applied. Drive nails straight and flush to the surface of the underlayment.

Install WaterGuard Rain & Ice *first* in roof valleys (see instructions below) and as a flashing membrane at roof-to-wall transitions, around vents, curbs, skylights and other roof penetrations; then apply along the eaves. Once in place, follow by flashing the rakes.

Strips of the membrane can also be used as stripping plies over flanges of metal flashing. If WaterGuard Rain & Ice is not used on the entire roof, other underlayments should be lapped 6" onto WaterGuard Rain & Ice applications (like roof valleys).

When using for full deck protection, make sure proper ventilation and moisture control issues are addressed; building use and internal moisture can increase condensation beneath the roof deck.

WaterGuard Rain & Ice is not intended as a permanently-exposed roofing surface but can be left uncovered for up to 60 days if necessary before the primary roof covering is installed. Good roofing practice dictates the primary roof covering be installed the same day as the underlayment.

WaterGuard Rain & Ice is not made for use under metal roof systems.

APPLICATION

Drip Edge Flashing: In accordance with 2015 International Building Code, Section 1507.2.9.3, and 2015 International Residential (Building) Code, Section R905.2.8.5, install non-corrosive, 26-gauge, sheet metal *drip edge flashing* (drip edge) along eave and rake edges for shingle installations.

Drip edge applications should have dimensions large enough to both position the top flange of the metal 2" back from the edge of the roof deck, and extend outward, down over the edge.

Secure with roofing nails, centered on the top flange at 8" to 10" on center, or per adopted local building code.

Install drip edge first along the eaves, and lap the initial course of WaterGuard Rain & Ice over it. Once underlayment have been applied up to the ridge on that section of roof, follow by flashing the rakes (over the ends of the underlayment).

Begin application of the rake drip edge at the lower corner of roof near the eave, and work your way up, lapping subsequent lengths of flashing over the lower pieces by a minimum of 2". Be sure to overlap the eave drip edge, too.

INSTALLATION: There are a number of different methods for installing WaterGuard Rain & Ice.

Method #1 – Removal of the Release Film While End of Sheet Is Adhered in Place

Begin at a lower corner of roof, and position a length of WaterGuard Rain & Ice parallel to the eave (atop the drip edge), adhesive side down, aligning in the desired position.

At the starting end, lift the membrane, and peel back at least 6" of release film. While still grasping the release film in one hand, press a corner of the sheet firmly to the roof deck with the other, adhering the exposed adhesive to the deck. Once secure, pull the release film out from under the sheet at a 45° angle, and don't stop until the film is completely removed. Do this in a continuous motion while maintaining proper placement of the sheet.

The split-release film may be removed one side at a time or simultaneously. If doing one side at a time, start with the side of the film that overlaps the other. **(See Figure 2)**

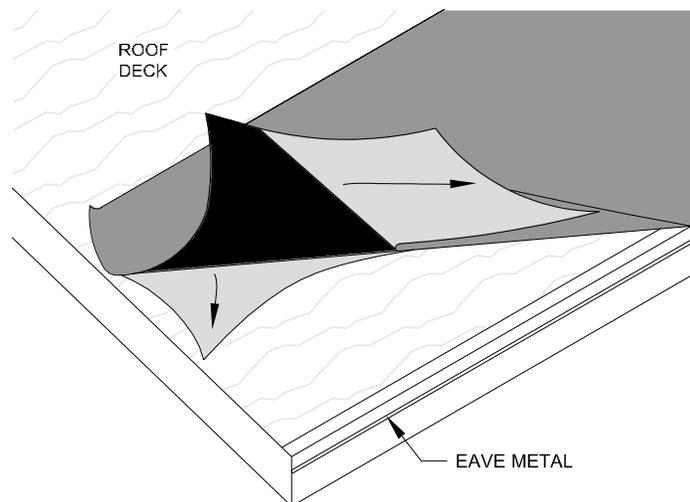


Figure 2 - Application Method #1

Method #2 – Exposing Half of the Underside at a Time and Removing the Release Film from that Half

Begin at a lower corner of roof, and position a length of WaterGuard Rain & Ice parallel to the eave (atop the drip edge), adhesive side down, aligning in the desired position.

Fold the upper half of the membrane back on itself to expose the release film on that side. 1) Peel off the release film completely; and 2) Carefully lay that portion of WaterGuard Rain & Ice back down into place onto the roof deck.

Once secure, repeat the process for the lower half: fold it back over the adhered upper half, peel off the release film, and return that portion into place. (See Figure 3)

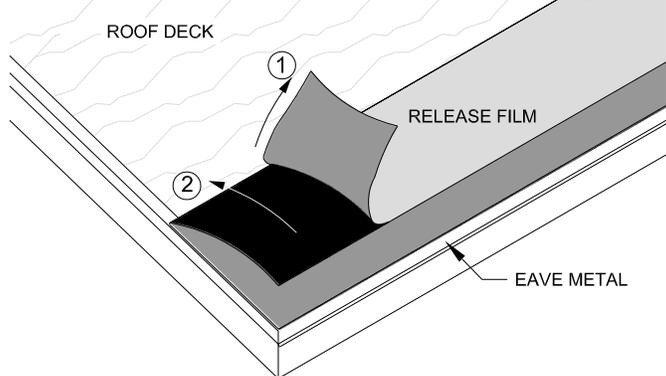


Figure 3 - Application Method #2

Method #3 – Complete Removal of the Release Film Prior to Laying in Place

Cut WaterGuard Rain & Ice to a convenient length, and “dry-fit” the membrane to the roof before removing the release film.

Begin at a lower corner of roof, parallel to the eave, and flip the whole sheet over so the adhesive side with release film faces up.

Peel both sides of the release film completely off. Hold tight to each end, and flip the sheet back over.

Pull the sheet taut, and carefully lower the membrane to the roof in unison from both ends. Allow the middle of the sheet to contact the deck first, then lower the ends, ensuring it is fully adhered and wrinkle free. (See Figure 4)

Method #4 – Removing the Release Film as WaterGuard Rain & Ice is Unrolled (This method is usually employed only when temperatures are hot or very warm.) Begin at a lower corner of roof, roll out a couple feet of material, and align the membrane parallel to the eave.

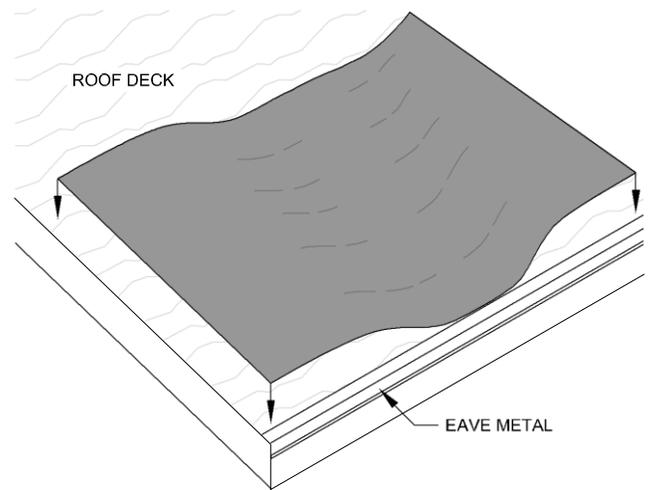
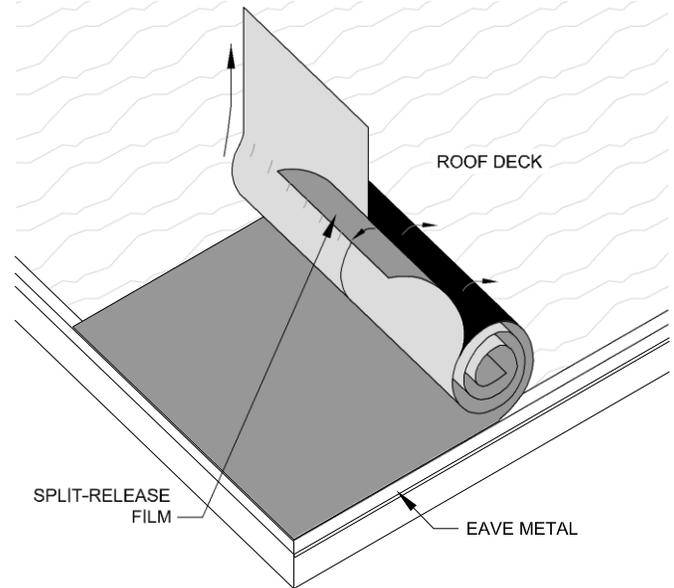


Figure 4 - Application Method #3

Press the exposed adhesive firmly to the roof deck with heavy hand pressure, and once secure, begin unrolling the membrane across the roof while simultaneously pulling up (and removing) the release film. (See Figure 5)



Reach under the roll, and peel back both halves of the release film, pulling them back under the roll until the adhesive can be seen.

Figure 5 - Application Method #4

Details Common to All Methods: Ensure each initial course application of WaterGuard Rain & Ice is taut, properly placed, lays flat, and is sticking well. If necessary due to the weather or on steep slopes, back-nail the WaterGuard Rain & Ice. When a section of roof is covered, use a heavy membrane roller over the entire surface to ensure complete adhesion. Roll overlap areas thoroughly. End laps can be 4" to 6" and side laps in overlying courses lapped to either the 2" or 4" lay lines.

Continue installing WaterGuard Rain & Ice up the roof from the eaves and along the rakes, no less than 24" past the interior warm inside walls of the house² or a spot well above the highest expected level of water backup from ice dams or according to adopted building code requirements. Be aware that ice dams extend further inward from the roof edge on low slope roofs.

Even though WaterGuard Rain & Ice is 36" wide, it is likely more than one course will be needed to cover the expanse of roof from the eave on up to 24" inside the wall of the house.

With WaterGuard Rain & Ice in place, standard underlayments can be used on the broad expanse of roof. The first course is lapped 6" over the last course of WaterGuard Rain & Ice.

Note: A double layer of membrane in vulnerable areas such as eaves and roof valleys is also recommended. At the eaves, install an 8" stripping ply of WaterGuard Rain & Ice under the drip edge, and ensure it covers the junction of roof and fascia. Follow with application of drip edge flashing and WaterGuard Rain & Ice as described above. (See Figure 6)

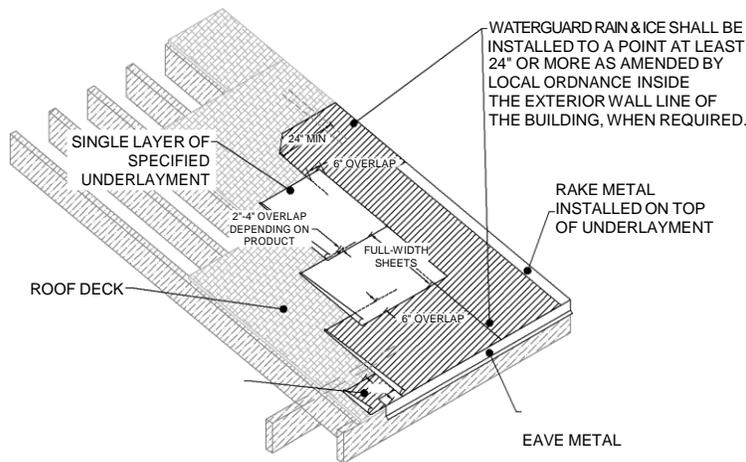


Figure 6 - Typical Application of WaterGuard Rain & Ice Self-Adhering Underlayment

Roof Valleys

WaterGuard Rain & Ice is recommended to line roof valleys, and application Methods 1, 2 or 3 can be used effectively here. Start application at the low point of the valley, lap WaterGuard Rain & Ice over and flush with the eave drip edge, and work upward.

A single length of WaterGuard Rain & Ice works best, but if that isn't possible, successive overlaps should be 6". Firmly hand-roll the laps to ensure a complete, water-tight bond.

As you apply WaterGuard Rain & Ice complete adhesion to the contour of the valley and up the sides is essential. Make sure equal amounts of the membrane lay on both sides of the valley centerline.

If fasteners are required, they cannot be applied closer than 6" from the valley centerline. (See Figure 7)

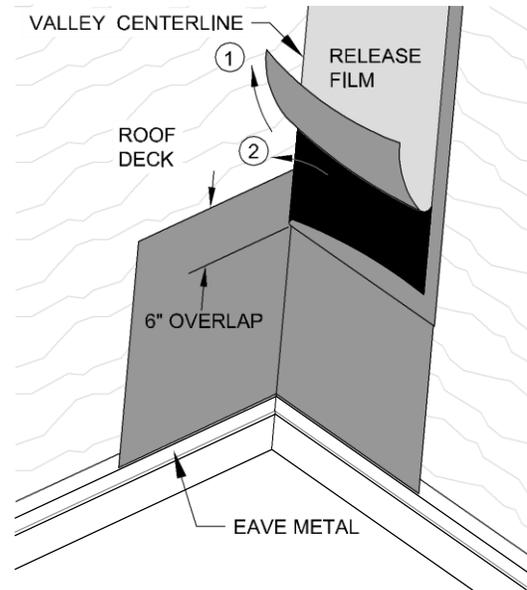


Figure 7 - Installation of WaterGuard Rain & Ice in a Roof Valley

Using Application Method #2

Subsequent installation of underlayment on the field of the roof can be laced across roof valleys and up the adjacent roof a minimum of 6" or lapped 6" onto the membrane valley liner.

² The 24-inch dimension is a requirement of 2015 International Residential Code®, Section R905.1.2 for Ice Barriers in areas where there has been a history of ice forming along the eaves, causing a backup of water.