

Photo courtesy of GAF Materials Corporation

For optimum roof protection, apply ice and water shield in valleys, along the eaves, and along the rake edges of the roof. Apply 30# felt paper over the remainder of the roof.

Installing Underlayment

Felt paper, also called building paper, is installed on roof decks as insurance in case leaks develop in shingles or flashing. It's sold in several weights, but 30# paper is a good choice for use under shingles, and may be required by code.

In cold climates, codes often require an additional underlayment, called "ice and water shield" or "ice guard," that's used instead of standard felt paper for the first one or two courses of underlayment, which is what we're showing here. In cold climates, apply as many courses of ice and water shield as it takes to cover 24" past the roof overhang. An adhesive membrane, the ice guard bonds with the roof sheathing to create a barrier against water backing up from ice dams.

If you apply the felt paper straight, you can use the lines on the paper as references when installing the roofing materials. This will help keep your rows of shingles running in a straight line.

Everything You Need

Tools: chalk line, hammer stapler, flat pry bar, utility knife, tape measure, caulk gun.

Materials: 30# felt paper, ice and water shield, staples, roofing cement.

How to Install Underlayment



1 Snap a chalk line 35% up from the eaves, so the first course of the 36"-wide membrane will overhang the eaves by 3/8". Install a course of ice and water shield, using the chalk line as a reference, and peeling back the protective backing as you unroll it.

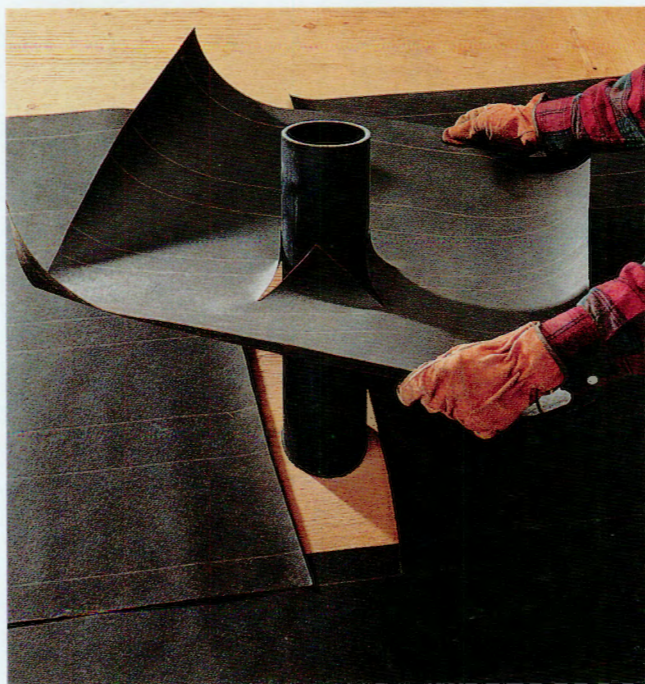


TIP: Drive staples every 6" to 12" along the edges of felt paper, and one staple per square foot in the field area.

2 Measuring up from the eaves, make a mark 32" above the top of the last row of underlayment, and snap another chalk line. Roll out the next course of felt paper (or ice guard, if required) along the chalk line, overlapping the first course by 4".



3 At valleys, roll felt paper across from both sides, overlapping the ends by 36". Install felt paper up to the ridge—ruled side up—snapping horizontal lines every two or three rows to check alignment. Overlap horizontal seams by 4", vertical seams by 12", and hips and ridges by 6". Trim the courses flush with the rake edges.



4 Apply felt paper up to an obstruction, then resume laying the course on the opposite side (making sure to maintain the line). Cut a patch that overlaps the felt paper by 12" on all sides. Make a crosshatch cutout for the obstruction. Position the patch over the obstruction, staple it in place, then caulk the seams with roofing cement.



5 At the bottom of dormers and sidewalls, tuck the felt paper under the siding where it intersects with the roof. Carefully pry up the siding and tuck at least 2" of paper under it. Also tuck the paper under counterflashing on chimneys and skylights. Leave the siding or counterflashing unfastened until after you install the step flashing.



Photo courtesy of Alside

Drip edge flashing protects against water working its way under the roofing materials along the eaves and rake edges of the roof.

Installing Drip Edge

Drip edge is a flashing that's installed along the eaves and rake edges of the roof to direct water away from the roof decking. Although its job is to deflect water, it also gives the edges of the roof an attractive finish. A corrosion-resistant material, drip edge won't stain your roofing materials or fascia.

The flashing is installed along the eaves before the felt paper is attached to allow water to run off the roof in the event it gets under the shingles. Drip edge is installed at the rake edges after the felt paper has been attached to keep wind-driven rain from getting under the paper.

Drip edge is always nailed directly to the roof

decking, rather than to the fascia or rake boards. The nail heads are later covered by roofing materials.

There are two basic styles of drip edge. One is the C-style drip edge that doesn't have an overhang, and the other is the extended-profile drip edge that has a hemmed overhang along the edges.

Everything You Need

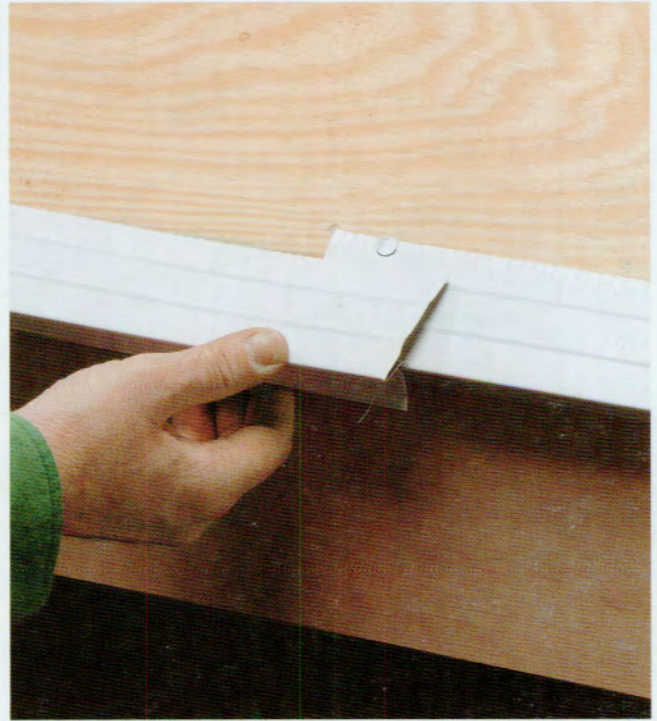
Tools: hammer, tape measure, aviation snips.

Materials: drip edge, roofing nails.

How to Install Drip Edge



1 Cut a 45° miter at one end of the drip edge, using aviation snips. Place the drip edge along the eaves end of the roof, aligning the mitered end with the rake edge. Nail the drip edge in place every 12".



2 Overlap pieces of drip edge by 2". Install drip edge across the entire eaves, ending with a mitered cut on the opposite corner.



3 Apply felt paper, and ice guard if needed, to the roof, overhanging the eaves by $\frac{3}{8}$ " (see pages 62 to 63).



4 Cut a 45° miter in a piece of drip edge, and install it along the rake edge, forming a miter joint with the drip edge along the eaves. Overlap pieces by 2", making sure the higher piece is on top at the overlap. Apply drip edge all the way to the peak. Install drip edge along the other rake edges the same way.