



## Roof Step Flashing

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Weather is a relentless bully. It seems to focus its stormy strength on a home's most vulnerable areas, attacking over and over again until rain and moisture infiltrates, and eventually damages, the home. Because a home's roof takes the brunt of the attack, it's critical to protect vulnerable areas of the roof against the elements, especially rainfall.

The most vulnerable areas of a roof are where the sloped roof meets a vertical wall, like the wall of a dormer window, or where a garage attaches to the two-story section of the house. If no water management strategies have been applied at the roof-to-wall transition, water can enter the home at this area, which can cause serious damage. Wet building materials can lead to mold growth, known to cause respiratory problems, and can lead to wood rot, which creates structural concerns.

The best practice for protecting these vulnerable areas against rain and moisture intrusion is to use step flashing integrated with the shingles.

The term flashing refers to both a material as well as a process. You can find flashing materials made of plastic, roofing felt, and rubber, but your best bet is rust-resistant metal, either galvanized steel, aluminum, or copper. The process of installing the flashing requires close attention and is a critical element to ensuring proper water management of the roof.

The key elements of the process include:

- ▶ Lay an ice-and-water shield to the edge of the roof deck.
- ▶ Place felt paper underlayment on the roof deck, ensuring the underlayment turns up at the sidewall a minimum of three inches.
- ▶ Starting at the bottom of the roof, install kick-out flashing, and then place the first course of the shingles over top of the flashing. Kick-out flashing is a piece of flashing that hangs over the edge of the roof, helping to divert water away from the adjacent wall or around any obstacles that the roof may butt into.
- ▶ Next, install the step flashing, with the next course of shingles over top of it. This process will continue up the entire roof. Step flashing needs to turn up a minimum of three inches up the sidewall. The flashing material should be four inches by seven inches in length when it lays on the roof deck. The seven-inch length ensures a two-inch headlap on each course.
- ▶ Once complete, the housewrap should overlap the step flashing that's applied to the wall.
- ▶ Wall cladding comes next, with a minimum reveal between cladding and roofing of one inch.

Layering flashing in a shingle-fashion is a critical part of the process. Because wind-driven rain will stop at nothing to infiltrate the home, you have to plan for weather to win out at times and for water to get past the wall's siding system. The flashing underneath the housewrap acts as a second barrier, so any water that gets past the siding is diverted back

onto the roof, where it can flow down and away from the home.

To win the war against weather by ensuring proper water management for the roof, don't underestimate your enemy. Assume it will try its best to infiltrate the vulnerable roof-to-wall transitions, and that it will win some battles. By applying step flashing integrated with roof shingles, you'll protect vulnerable areas, ensuring that water does not enter and damage the home.

For more [information about moisture](#) control and flashing for roofs, visit BuildIQ's resource library.

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