

Roofing Ice Shields

Last Updated: Tuesday, June 11th, 2013, Created: Thursday, March 20th, 2008

"I would like to ask your thoughts on the "pros and cons" on the use of the self-adhesive, 3 ft wide membrane (ice dam) used on the edge of the roof line. I believe that this would replace the felt paper, under the 1st rows of asphalt shingle. We have a sloped roof, but I do not know how steep it is. Are there any technical drawbacks in using this membrane?" John - Montreal

From a building science point of view a waterproof strip on the lower portion of the roof is a Band-Aid that would not be necessary if there was nothing in the house design and construction to melt the bottom of a snow pack. In reality, icing problems are so common that it is now code in some areas to waterproof the lower edge of the roof -- technically high enough up the roof that it would reach a line drawn vertically up from a point 18 inches back from the outer face of the wall. Hence, how far up the roof from the edge of the overhang depends both on the extent of the overhang and the slope of the roof. This is the area that has been found to be most susceptible to water backup caused by ice damming on the edge of the roof. Commonly a 3 foot strip is installed without anyone doing the proper calculations because that is most often close to the mark. Check out Ice Shields

Some contractors, especially in Quebec, have picked up the idea of covering the entire roof with this plastic or rubber sheet -- with a great deal of debate about trapping moisture in the wood below. I personally don't support a full membrane over a ventilated roof space on a sloped roof. It is not necessary and it has some potential for trapping moisture, so why take a risk that has no real benefit and costs a lot of money? As to technical drawbacks, I see none as long as it is limited to the lower portion of the roof edge, which permits several drying mechanisms to continue to function keeping the entire roof deck dry and solid. What I do encourage is if you have had past icing problems, that you study the entire roof system, from the ceiling drywall to the shingles, to find out why. Just putting Band-Aids in an attempt to waterproof the top is not as effective as finding out why there is water rising up under shingles in the first place, and often the fix is as simple as air sealing the ceiling, or as complicated as raising the roof higher to allow for more insulation and more ventilation -- or some of all of that. See my information on Ice Dams

What bothers me most is someone who spends a fortune fixing a roof to exactly the good condition it was in before it started having problem, without fixing the problems. I believe it was Einstein who defined idiocy as "Continually doing the same thing expecting different results."jon

Keywords:

Ice Dams, Waterproof, Water Penetration, Leaking, Ice, Membrane, Water, Roofing Felt, Shingle, Roof