



Insulation • Fireproofing • Soundproofing News & Information

White Paper

Ice Dams: How to Prevent and Treat This Pesky Wintertime Problem

If you've taken the time to look at your gutters lately, you probably noticed something: a huge clump of frozen ice hanging off the edge of your roof and some dripping icicles large and lethal enough to kill a bear.

That lump of ice is called an **ice dam**, and it forms at the edge of a roof and prevents melting snow and water from draining off the roof. The water that backs up behind the dam and can leak into your home and damage walls, ceilings and insulation. There's a complex explanation as to why ice damming occurs, but for simplicity's sake, let's take a quick and un-complicated look at this phenomenon.

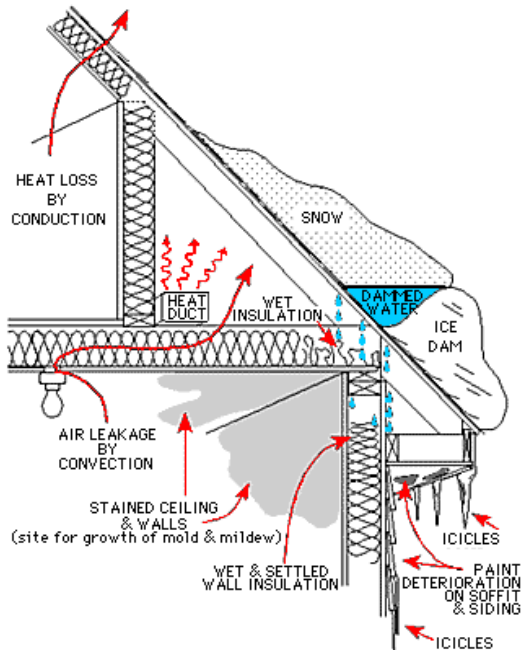
Why all the Dammed Ice?

Basically, for ice dams to occur, there must be snow on the roof. At the same time, higher areas of the roof's outside surface (like the peak) must be above 32F, and lower surfaces of the roof must be below 32F. The snow on the warmer roof surfaces will melt. The water flows down the roof and hits the portions of the roof that is below 32F and freezes. Whamo! ó You've got yourself an ice dam.

As this cycle of melting and freezing continues, the ice dam will grow. It'll form what can only be described as a white blob that hangs over the edge of your roof and encases your gutters. You'll probably start to see pretty icicles start to form, too. But while you may think the white blob with icicles looks cool, it certainly is no laughing matter. Here's why:

Ice Dam Dangers

Ice dams grow as they are being fed by the melting snow above it. But ice dams limit themselves to the lower areas of the roof that average 32F or below. So, when water backs up behind the ice dams, it'll eventually reach areas that are above 32F and therefore stay liquid. This water will find its way into your home, usually through cracks and openings in the exterior roof covering. Once it's penetrated through the roof, water can flow into the attic space and exterior walls, resulting in damaged painted surfaces, stained walls and ceilings, and compromised insulation systems. Not to mention introducing the potential for mold and mildew growth!



Look at this graphic

These houses have some nasty ice dam issues!!



A picture speaks 1,000 words...

Out, Out Dammed Ice

Now, if we really wanted to confuse you, we could start talking about all the ways heat travels to and from the roof, causing different roof temperatures that result in ice damming in the first place. That's another article for another time. But for now, let's just stick to ways that you can deal with ice damming.

Be forewarned, ice damming can't be eliminated completely. Snow is a main ingredient in ice dam formation, so unless you live in an area with a mild winter climate, you can pretty much bank on snow accumulating on your roof at some point during the winter season. The sun is another factor too. Since sunshine is here to stay, the cycle of melting and freezing that leads to ice damming is with us for the long haul as well. So, sorry to say, ice damming is a reality for most of us. What we can offer you, then, is ways to deal with ice damming and how to decrease the severity of it.

So, one of the first things you can do is remove the snow from your roof. Sounds like a no-brainer, right? As previously mentioned, snow is a main ingredient in the ice damming recipe. Just keep in mind that performing work on any roof has its risk for injury, let alone a roof piled high with snow. Before you whip out that ladder, you might want to think about contacting a professional to carry out this job.

If removing snow from the roof isn't an option, think about creating a channel through the ice dam to allow the water behind the dam to drain off the roof. Hosing it down with water on a warm day should do the trick. Keep in mind that this is only a temporary solution. The channel will eventually refreeze.

For a long-term solution, we recommend calling an insulation contractor. They'll be able to help you make your attic and other areas of the building -- airtight so as little heat as possible escapes. Keep in mind, though, that insulation will only go so far. It will help keep the heat inside your building, but the outside of your building will forever be subjected to the heat of the sun.

Ace Resources, Inc. installs commercial and residential insulation, soundproofing, fireproofing and intumescent coatings. For more information or to schedule an Insulation or Fireproofing Audit contact the company.

Ace Resources, Inc.: Your Experts For Insulation & Fireproofing

1055 South Hanover Street Pottstown, PA 19465

Ph: 610-323-6990 Fax: 888-286-3091

www.aceresourcesinc.com info@aceresourcesinc.com