

# ICE DAM MYTHS

## Ice Dam and Icicles

If you listen to the news or do some research on the internet about methods of getting rid of ice dams along your roof line, chances are you'll just be force-fed the most common solutions that have been floating around for generations: add more insulation, ventilate your attic, install zig-zag cables, etc. Unfortunately, too many people fall prey to these so-called "solutions" and invest a lot of their time and money only to find that ice dams and icicles return anyway!

### Ice Dam Formation 101: Why the problem exists in the first place

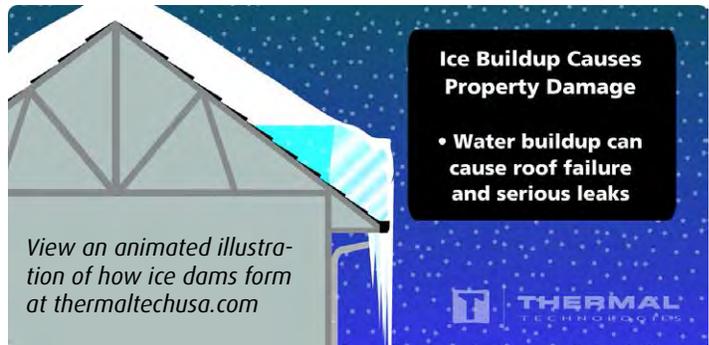
- Snow accumulates on your rooftop as the result of one or more winter storms
- The snow begins to melt due to both solar heat from above and home heat loss from beneath
- Melted snow trickles down to the surface of the roof where it settles along colder valleys, overhangs, and gutter lines
- When temperatures dip below freezing again, this snow melt refreezes, forming dams of ice

If left unchecked, ice dams and their accompanying icicles can cause all sorts of problems in varying levels of severity:

- Water pools accumulate behind ice dams: this may cause water leakage into the home itself, resulting in stained sheetrock, warped hardwood floors, mold, ruined personal belongings, and many other different kinds of interior home damage
- Massive, heavy sheets of ice on the roof contract and expand, resulting in costly damage to the roof itself as well as the gutters
- Icicles grow as more refreezing occurs, endangering the safety of family members and neighbors

The only way to ensure the safety of your property and loved ones is to prevent and/or eliminate ice dams altogether. Climbing on the roof to shovel after a storm and climbing a ladder to knock ice dams and icicles off are not only extremely unsafe methods of ice dam control: they also don't fix the problem. The best answer is to find a permanent solution that will eradicate ice dam formation once and for all.

## Five Common Myths



### Myths And Facts About Ice Dam And Icicle Solutions

**MYTH #1:** Solar radiation and its resulting heat have little effect on the formation of ice dams: home interior heat loss through the attic is mainly to blame.

**FACT:** The heat from the sun and its resulting impact on roof-top snow melt has a huge effect on the formation of ice dams. No matter how many means you take to try to prevent the effects of home heat loss on the inside of your roof, you simply cannot shield your roof from the sun's heat on the outside. Solar radiation-caused snow melt is a large contributor to ice dam formation and it is a cause that simply cannot be prevented.



Ice dams can create structural damage, and introduce moisture into the home, causing mold and mildew.



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**MYTH #2:** Adding more insulation to the attic or ventilating the area better will prevent ice dam formation

**FACT:** This is a very popular myth, and although adding insulation can help lessen the problem a little, it simply cannot prevent or get rid of ice dams in and of itself.

- Insulation is not designed to prevent ice dams: it is a material designed to manage energy costs in the home. Having too much insulation in the attic areas actually serves to retain moisture. As a result, the insulation will become more compact and lose much of its efficiency as an insulator. And if your home has a chimney, vaulted ceilings, or skylights, the roof will still become heated anyway despite the addition of extra insulation.
- Improving an attic's ventilation system will indeed make the temperature differential between the underside of the roof and the outside air less disparate. A colder attic may help to slow the melting on your rooftop, but it cannot eradicate it altogether.

**MYTH #3:** Installing a "cold roof" will prevent the formation of ice dams

**FACT:** A "cold roof" is one that uses insular material between the rafters or below them to help keep the temperature of the inside of the roof at the same level as the temperature on the outside of the roof. The problem is, it might help a bit; but as with attic insulation and ventilation, this solution only seeks to address the melting that comes from home heat loss and can do nothing to prevent the effects of solar radiation: Because of the effects of solar radiation, snow melt and refreezing can *never* be totally prevented by the installation of a cold roof.

**MYTH #4:** Replacing existing shingles or installing more ice and water shield membranes on an existing roof will eliminate leakage from ice dams

**FACT:** Water shield membranes and similar products are simply not intended to prevent damage resulting from conditions of standing water on the roof. They are designed to prevent problems with condensation under the shingles in the summertime, not prevent water migration into roofing substrate. Also, replacing damaged shingles, adding new shingles or replacing a roof altogether do not solve old problems: they are thoroughly ineffective in preventing backed up water from seeping through to the home below. Bottom line: even if you get a brand new roof, problems with ice dams and icicles will inevitably return.



*Zig-zag heat cables were not effective on this roof.*

**MYTH #5:** Zig-zag cables on the roof and/or heating cables in the gutters are effective in the prevention of ice dams.

**FACT:** Heating cables were originally designed to keep gutters free from ice and to keep water pipes from freezing. So these cables are great for keeping gutters clear, but in truth they do very little to help in the fight against ice dam formation. If you live in an area of the country that has a relatively mild climate and receives only moderate amounts of snow fall, the use of zig-zag cables along the roof line is perfectly adequate. But they are completely ineffective in cold, extremely snowy climates and, when snowfall exceeds just 4 inches, will only be able to create small melted tunnels around the immediate area. The truth is: these cables were just not designed to handle massive amounts of snow. Ice dams will form above and below the melted areas surrounding the zig-zag cable.

## IS THERE A PERMANENT, NO-FAIL SOLUTION TO ICE DAM FORMATION?

The benefits of adding insulation, ventilating the attic, or installing a cold roof simply do not compensate for the effects of the sun: as long as the sun shines, you will still have problems with ice dams. Period. All of the above mythical "solutions" are just putting a band-aid on the problem instead of solving it. Our T-Panel system is simple, energy-efficient, attractive in any season, and best of all: it doesn't pussy-foot around your icing problems: it zeroes in on ice dams and icicles and prevents their formation before it becomes an issue. Period.



*Our heated panels warm the entire depth and length of the roof's freeze zone.*



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