

## Protecting Against Damage from Ice Dams

*Revised August 2024*

Snow and ice accumulation on steep-slope roofs can lead to ice dams at the roof eaves. Ice dams are typically formed by the repeated thawing and freezing of melting snow or the backing up of frozen slush in gutters. When ice dams occur, water can be forced under the roofing materials and may cause damage to a home's ceilings, walls, and insulation, as well as long-term damage to structural components.

Avoiding potential damage from ice dams begins with mitigating their formation in the first place. The following steps can be beneficial in reducing the potential for ice dam formation:

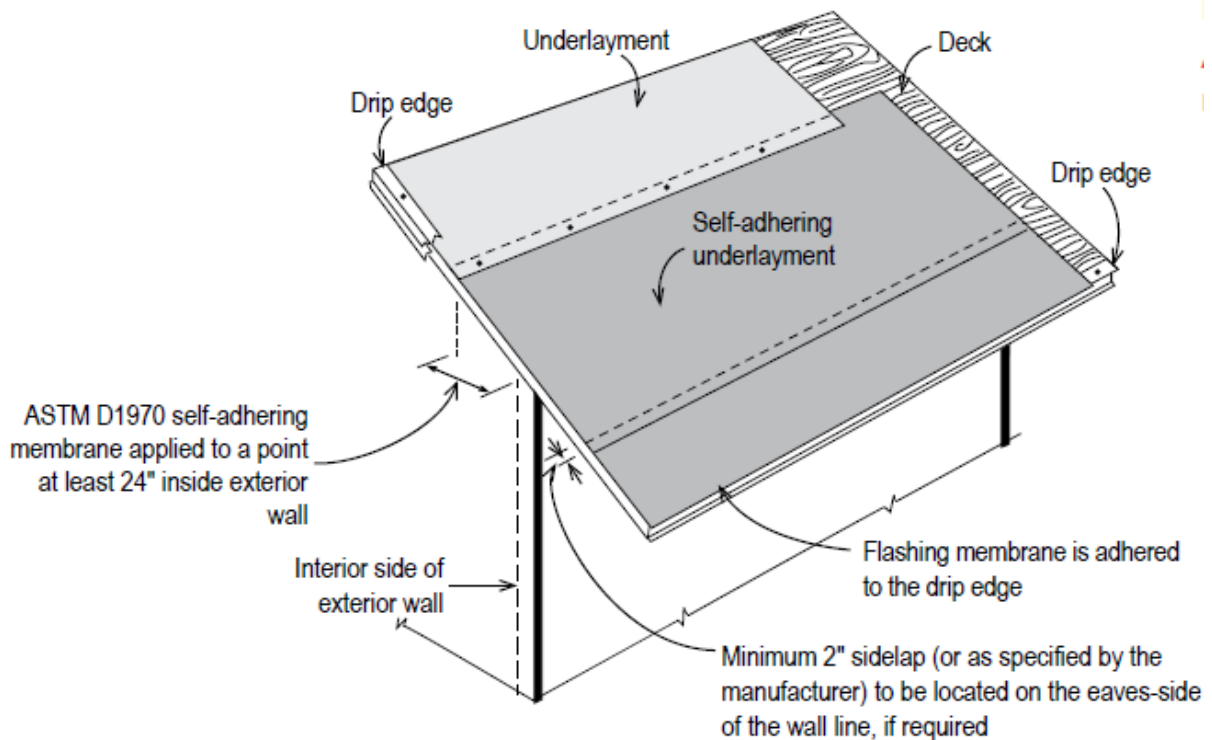
1. Keep the attic space cold by insulating it from the warm house interior, thus reducing or eliminating snow melt.
2. Ensure the attic space is properly ventilated, including the installation of baffles near the eaves to ensure unobstructed air flow.
3. The outer edges of the gutters should be lower than the roof's slope line to allow snow and ice to slide clear. Also, ensure gutters and downspouts are free of debris.

The installation of an ice dam protection layer along eaves is recommended to protect against leakage from ice dams, should they form. Per the International Building Code, the International Residential Code (IBC and IRC), and the National Building Code of Canada (NBCC), in areas where there has been a history of ice forming along the eaves, causing a backup of water, an ice barrier shall be installed. There are two methods of creating an ice dam protection layer. The installation of one layer of a polymer-modified bitumen self-adhering underlayment that complies with ASTM D1970 in the U.S. and CSA A123.22 in Canada is one approach, as recognized by the current versions of the building codes. ARMA recommends that the product should be extended a minimum of 24 inches (610 mm) inside the interior wall line of the building. Some jurisdictions require eave protection to extend further up the roof slope, while others call for less. In all cases, apply per the roofing manufacturer's installation instructions and your local building code.

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As an alternative, use two layers of asphalt-saturated felt cemented together as the ice dam protection. Refer to the roofing manufacturer's installation instructions and the local building code for installation requirements.

## Self-adhesive as Ice Dam Protection



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