

ICE DAMMING: DESIGN, PREVENTION, & CODE COMPLIANCE

SUMMARY

This bulletin provides guidance on ice damming, including contributing factors, prevention strategies, and code-compliant design requirements when installing Brava Roofing systems in cold-weather and snow-prone climates.

WHAT IS ICE DAMMING?

Ice damming occurs when snow on a roof melts due to heat transfer from the building interior and refreezes at colder roof edges, usually at the eaves.

This can cause:

- Water backup beneath roofing materials
- Damage to underlayments, roof decks, and interior finishes
- Interior water intrusion

Ice damming is **not a product defect**, but a building science and design condition influenced by climate, insulation, ventilation, and underlayment selection.

BEST PRACTICES FOR ICE DAM PREVENTION

While ice barriers protect against water intrusion, proper roof system design is critical to minimizing ice dam formation. Brava roofing systems perform as intended when installed as part of a properly designed and ventilated building envelope.

Recommended Best Practices:

- Adequate attic insulation to reduce heat loss
- Proper attic ventilation (balanced intake and exhaust)
- Air sealing at ceiling penetrations
- Proper roof slope and drainage design

Preventing ice dams starts with controlling heat loss, moisture, and snow buildup on the roof. Routine winter maintenance, clearing excess snow, and keeping the attic properly insulated and ventilated reduce the conditions that cause ice dams.

Before winter, homeowners should schedule a roof and attic inspection with a licensed contractor. This check can reveal ventilation problems, insulation gaps, or maintenance issues and guide practical improvements that lower cold-weather risks.

If left unchecked, ice dams can cause costly damage.

Trapped meltwater can seep beneath roofing and into attic or ceiling spaces. Early prevention and prompt snow removal at the eaves help limit exposure, and working with an experienced contractor helps ensure the right measures are in place before damage occurs.

CONTENTS

- What is Ice Damming?
- Best Practices for Ice Dam Prevention
- Brava Installation Requirements for Ice Damming Regions
- Code Compliance
- Notes
- Resources
- Questions



BRAVA INSTALLATION REQUIREMENTS FOR ICE DAMMING REGIONS

When installing Brava roofing products in jurisdictions requiring ice dam protection:

- Install a code-compliant ice barrier membrane at eaves
- Extend self-adhered membrane onto the roof deck from the eave a minimum of 24" inside the warm wall per IRC/IBC requirements
- Use only approved underlayments compatible with Brava systems
- Follow the current product-specific Brava Installation Guide requirements

Failure to install required ice barriers may result in non-compliance with local codes and could impact warranty coverage.

CODE COMPLIANCE

To prevent water intrusion caused by ice dams, both the **International Residential Code (IRC)** and **International Building Code (IBC)** require the installation of ice barrier protection in areas with a documented history of ice formation along eaves. These codes establish minimum standards for underlayment systems designed to stop backup water from penetrating roofing assemblies. While the IRC provides specific installation measurements and material requirements, the IBC reinforces the same protective intent for applicable structures, ensuring consistent ice dam mitigation across residential and commercial applications.

International Residential Code (IRC)

IRC Section R905.1.2 – Ice Barriers

"In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or a self-adhering polymer-modified bitumen sheet shall be used."

IRC Requirements:

- Ice barrier must extend:
 - From the eave edge
 - To a point at least 24 inches inside the exterior wall line of the building

COLD-CLIMATE PERFORMANCE

Brava roofing systems are engineered to perform reliably in cold weather and snow-prone regions when installed as part of a properly designed, code-compliant roof assembly. By following recommended insulation, ventilation, and ice barrier requirements, contractors and homeowners can confidently expect long-term durability, weather protection, and consistent performance throughout harsh winter conditions.



International Building Code (IBC)

IBC Section 1507.1.2 – Ice Barriers

"In areas where there is a history of ice forming along the eaves causing a backup of water, an ice barrier shall be installed."

IBC requirements mirror IRC intent for ice dam protection on applicable structures.



RESOURCES

Check for updates to this and other [Technical Bulletins](#) on our [Resources Page](#).

Complete Installation Training, View Resources, and Contact Technical Support by visiting the [Technical Services Portal](#).

QUESTIONS

If you have any questions regarding Brava Roof Tile products and accessories, call 844-290-4196 to reach our support team.

Or contact us through the [Technical Services Portal](#).

