

# ALPINE Ice Solutions

## Roof Ice Melt System

### Sample Specifications

#### 10.3.01 References

A. Requirements of the General Conditions, Supplementary Conditions and Section 01001, Basic Requirements, apply to the work of this section.

#### 10.3.02 Section Includes

- A. [ALPINE™ Ice Solutions, LLC Roof Ice Melt System](#) Materials and Components: All Roof Ice Melt System components, including Metal Heating Panels, Heating Cable, Controls, and Accessories specified for roof sections, gutters, downspouts, drains, shall be provided by ALPINE™ Ice Solutions, LLC.

The system shall provide nominal 12 watts/ft on Eaves, and 12-24 watts/ft for Valleys and other melt paths as specified in the plans.

This project is a Class \_\_ Snow Load Classification area.

Class 1 Snow Load zones, above 8500', elevation shall utilize Kynar Coated Galvanized Steel Metal Heating Panels (select color).

Class 2 Snow Load zones, below 8500' elevation, shall utilize Kynar Coated Galvanized Steel Metal Heating Panels (select color).

- B. Self-Regulating Heating Cable and Accessories for Gutters and Downspouts shall be UL listed for roof deicing, rated 8-12 watts / ft at 32 degrees F, (select 120V or 240V)

#### 10.3.03 Related Work In Other Sections

- A. Section 7.xx: Roof Design Details
- B. Section 7.xx: Gutter and Downspout Details
- C. Section 16.xx Electrical

#### 10.3.04 Quality Assurance

- A. The ALPINE™ Roof Ice Prevention System and Heating Cables shall be supplied in conformance with the ALPINE Ice Solutions System's quality assurance program. The ALPINE™ supplied heat cable, power connection kits, shall bear a UL Listed label specifically for Roof and Gutter De-Icing.
- B. The complete roof ice melt system shall be in full compliance with National Electrical Code (NEC), Article 426.1 (B) "Fixed Outdoor Electric Deicing and Snow-Melting Equipment", and NEC Article 426.1(B) Exposed - Exposed on drainage systems, bridge structures, roofs, and other structures". The heat cable shall be exposed for the

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purpose of insertion, inspection, and replacement. Embedded heat cable systems (per Article 426.1(A)) shall not be acceptable.

#### 10.3.05 Submittals

- A. Furnish installation drawings, installation instructions, operation instructions, and product data sheets.

#### 10.3.06 Product Delivery, Storage and Handling

- A. ALPINE™ components shall be delivered in undamaged condition. The jobsite receiver will inspect the materials when delivered, note any damage on the bill of lading for driver's signature, and notify the trucking company and manufacturer of the damage within 24 hours of receipt of materials.

#### 10.3.07 Warranty

- A. Heating Cables shall be warranted by the heat cable manufacturer against defects in material and workmanship for a period of two (2) years from date of final acceptance. A 10 year limited warranty shall be available upon completion of the heat cable manufacturer's required field test results document included in the Installation Instructions. This document must be submitted to Alpine Ice Solutions, LLC, per the Heat Cable's manufacturer instructions provided.
- B. The heat cable manufacturer, at his option, shall either repair or supply replacement materials if that material is defective per the above warranty definitions.

#### 10.3.11 ALPINE™ Roof Ice Melt System

- A. The Engineered Ice Melt System shall utilize metal Heating Panels with an integral heat cable raceway built into the drip edge as manufactured by ALPINE Ice Solutions, LLC. Other systems using a separate cable retention device to secure the heat cable to the drip edge, shall not be acceptable. Embedded heat cable systems shall not be acceptable. Covered mat or mesh systems shall not be acceptable. Acceptable products are ALPINE Heated Metal Roof Eave Panel™, ALPINE Heated Shingle Roof Eave Panel, ALPINE Heated Custom Roof Eave Panel, ALPINE Heated Valley / Utility Panel™, and related products as manufactured by ALPINE Ice Solutions, LLC, 12960 W Burgundy Dr Littleton, CO 80127. Phone 720-273-2125. [www.AlpineIceSolutions.com](http://www.AlpineIceSolutions.com)
- B. Metal Components to be Copper, 0.021", 16 oz., 1/2 Hard; or 40 mil Aluminum with Kynar Coated paint finish; or Painted Galvanized Steel, 0.019", with KYNAR or SMP

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(Siliconized Modified Polyester) based paint finish and supplied in 5' lengths, as specified in the plans.

#### 10.3.12 Heating Cable

- A. The electric heating cable and accessories shall be UL Listed (KOBQ) specifically for roof and gutter de-icing equipment and be manufactured in the USA.
- B. The heating cable shall be self regulating, parallel resistance construction capable of being cut to length and terminated in the field.
- C. The heating cable shall consist of two parallel nickel-plated Copper bus wires embedded in a radiation cross-linked self-regulating conductive polymer core specifically designed for snow and ice melting. The heating cable shall be capable of varying its heat output along its entire length. The heating cable shall include polyolefin dielectric jacket rated 300 VAC at 105 C, a tinned-copper braid (14 AWG equivalent wire size), and a UV stabilized polyolefin overjacket.
- D. Heating cable and heat cable accessories for the Roof Ice Melt System and all gutters and downspouts associated with the project to be included with and supplied by the Roof Ice Melting Equipment manufacturer as a complete system.

10.3.13 Control System shall be optional and provided by Alpine Ice Solutions.

#### 10.3.14 Junction Box/Power Termination

- A. The heating cable circuits shall be connected to the power wiring in an approved junction box with approved termination components and the power feed shall have ground fault circuit protection as required by the NEC Article 426. Junction Boxes provided by others.

#### 10.3.21 Inspection

- A. The Contractor shall inspect the materials supplied against the Packing List and Installation Manual. The Contractor shall note any discrepancies and work with the manufacturer to resolve.

#### 10.3.22 Installation

- A. The ALPINE™ System, components, and heat cable shall be installed in accordance with the Alpine Roof Ice Melt System and the Heat Cable manufacturer's Installation Manual.

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- B. It is the responsibility of the General Contractor to coordinate the installation of the roof ice melt system with the various sub contractors, specifically the roofing and electrical sub contractors.
- C. The electrical contractor shall test the heating cables per the Heat Cable manufacturer's installation instructions, complete the test forms, and submit them to ALPINE Ice Solutions, LLC for review and extended warranty activation.

#### Section 7

- 7.xx This project includes a roof and gutter de-icing system that is specified in Section 10.3. The installation shall be coordinated with the roofing/gutter downspout contractor and the electrical contractor.

#### Section 16

- 16.xx This project includes a roof and gutter de-icing system that is specified in Section 10.3. The installation shall be coordinated with the roofing/gutter-downspout contractor and the electrical contractor.