



ThermaShingle+ Installation Guide

The ThermaShingle+ system was designed to mitigate ice dams and icicles on roof eaves by way of our heated metal panels. This system is specifically for new asphalt shingle, specialty shingle and composition roofs, in conjunction with our UL-listed self-regulating ice melt cables. ThermaShingle+ is installed directly onto the ice and water shield.

Required Tools and Components

- Speed Square/Putty Knife/Chisel
- Handheld Metal Snips
- ThermaShingle+ panels (1x, 2x or 3x)
- Transition panels
- Heat cable
- Adhesive
- Power connection kits
- End seals
- Splice kits (as needed)

Part 1: Placement of ThermaShingle+ Panels

1. Ensure all panels are face-up with visible raceway(s) extending outward for cable insertion and maintenance per NEC Article 426.

2. Flip the ThermaShingle+ panel over to the unfinished side and apply adhesive in one-and-a-half-inch-wide dollops every 12 inches along the panel's backside.

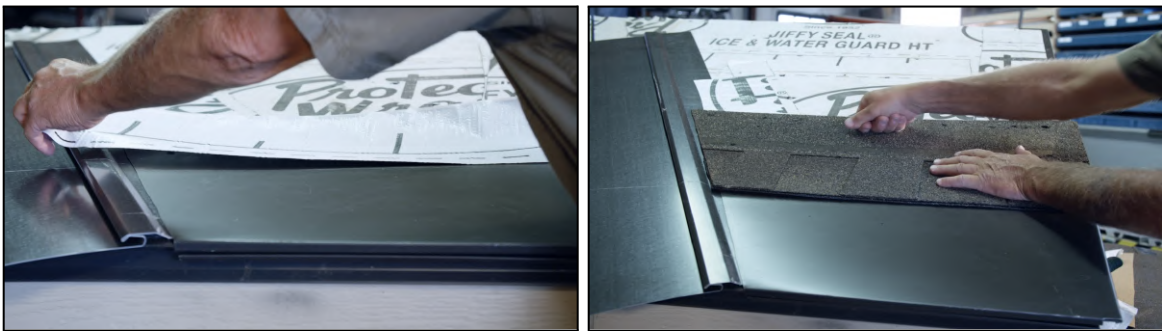


3. Flip the ThermaShingle+ panel back over so the finished side is up and lay the panel on top of the ice and water shield and over a D-style drip edge.



NOTE: For inside/outside corners: Use hand held metal snips, cut the edges in a diagonal direction (approx. 120 degrees). Where the raceway meets in the corner, cut back each raceway 3 inches to allow for the heat trace cable to make the bend and avoid kinking. Heat trace cable will not function properly if it has been kinked or cut.

4. When you are ready to install your roof shingles, apply a small run of adhesive on top of the back edge of the ThermaShingle+ panel. Shingle up the roof as you normally would, ensuring a 3-6 inch overlap over the fresh adhesive to ensure firm material connection. For an added layer of protection, some contractors add an extra layer of ice and water shield over the back edge of the ThermaShingle+ panel before adding their roofing shingles.



Part 2: Securing the Ice Melt Cable

1. Measure the ThermaShingle+ panels to determine the required cable length for each run. Don't forget to add additional length to connect the run(s) to power or for gutters/downspouts if incorporated into the design. Cut the ice melt cable on the ground before moving it to the roof.

2. Adjust raceways before insertion using a speed square, chisel, or pliers in small sections to ensure the cable is properly placed and secured.



3. Starting at one end, feed the heat trace cable into the raceway from the front. Be sure to protect the heat trace cable and prevent damage from burrs or sharp edges. Gently push the heat trace cable into the front raceway using your fingers or the plastic handle of a scraper.



4. Once the heat trace cable is loosely seated, use a soft plastic scraper and press the handle with the palm of your hand and gradually secure it downward.



5. Loop the remaining ice melt cable under the inner edge of each panel.

Part 3: Applying the Transition Panels

1. Flip the transition panel upside down and place one line of adhesive on each side of the panel edge. Make sure to stay within an inch or so from the edge so the adhesive does not appear visible once the panel is affixed.
2. Center the transition panel over the small space between one ThermaShingle+ panel and the next and gently push down to adhere.

Part 4: Installing Rake End Caps (optional)

1. If they are included in your order, these caps will be the last part of your installation. Our clean looking end caps protect the system cable and slide right over the rake, affixed by additional adhesive.





Electrical Best Practices

- Make sure an end seal kit is installed on the terminating end of the heat cable runs to protect the cable from moisture.
- Only a licensed electrical contractor should power up the system. The electrical connections and end seals require an experienced contractor.
- Details of the electrical installation in this document are brief and do not cover the many variables encountered in the field.
- More information is available in the ice melt cable manufacturer's installation instructions provided with the ice melt cable.
- The cold start-up current load after a power failure should be considered in the design phase of the project. In all cases, the UL approved ice melt cable manufacturer's instructions over-ride the ThermaShingle+ installation instructions.
- At low temperatures, the startup current of self-regulating ice melt cable can be quite large. Consult the ice melt cable manufacturer's maximum cable length data charts for additional information.
- EPD ground fault breakers with 30 ma trip points must be used, as per Article 426.28 of the NEC.

Final Inspection Checklist

- ThermaShingle+ panels are properly placed and ready for new roof shingle installation.
- Seal Bond 105 adhesive has been applied at the appropriate intervals.
- Ice melt cable is correctly measured, cut, and inserted into the ThermaMetal raceways.
- The raceway is properly folded over the cable for protection.
- Cables are looped and secured with clamps or padded loops to prevent damage inserting into electrical panels.
- Transition Panels are affixed to the roof via our adhesive (fasteners are optional).
- Rake end caps are affixed and cover any exposed panels or cable.
- For additional support such as project quote, layout and bill of materials, contact your supervisor. If further assistance is needed, consult ThermaLine FAQ.
- If the above is insufficient, please email ThermaLine for troubleshooting the installation at: service@thermaline.us.