

## How do Ice Melts Work?

For an ice melt to begin working, solid granule material must dissolve in water to create a liquid brine. This liquid brine lowers the freezing point of water preventing the buildup of ice and breaking the bond between the pavement or concrete. When the ground temperature gets too cold, some ice melts are unable to make this essential conversion.

Consider the ground temperature, not the air temperature. The air temperature is not nearly as important as the temperature of the ground – this is the temperature that has a direct effect on the ice melt's ability to convert to a liquid brine and effectively deal with snow and ice.

*What does it mean when the weather report is 10 degrees F at sunrise and my ice melt has an effective temperature of 0 degrees F?*

*Will the ice melt work?*

*What if this morning is the first day in ten days when the temperature is actually warmer than five below zero?*

Ground temperature is crucial in determining which ice melt will be effective but these other weather factors should also be considered and have the potential to affect the ground temperature.

Another way to maximize effectiveness is to apply ice melt materials in advance of an anticipated winter weather event, rather than applying after snow or ice has already fallen. The ice melt will convert to a brine more rapidly and prevent the buildup of ice from the onset of inclement weather. The primary goal of ice melting products is to prevent the adhesion of snow and ice to pavement surfaces, and this task is significantly simplified if the ice melt can immediately react to falling snow or ice.

Some ice melts, like Sodium Chloride (rock salt), are effective at higher temperatures while products like Calcium Chloride and Lightning Premium are formulated to function when ground temperatures are below freezing. Choosing the right ice melt for the ground temperature when making your application will help ensure the successful control of snow and ice this season.