

Frequently Asked Questions Regarding Ice Melter

Q. How do ice melters work?

A. All ice melters work by dissolving upon contact with ice and snow. The dissolved ice melting ingredients lower the temperature at which the resulting brine solution will refreeze.

Q. What are the main differences between ice melters?

A. Ice melters differ in their ingredients, how the ingredients are combined, and the ingredients' performance characteristics. There are three main types of ice melters: single ingredients, simple blends and manufactured product.

Q. What is the difference between a simple blend and a manufactured product?

A. Some products consist of a single ingredient. However, a simple blend consists of granules of different ingredients mixed in the same bag. A manufactured ice melter contains multiple ice melting ingredients that have been applied to the granules. Manufactured ice melters improve on the performance of simple blends because the ingredients are processed together.

Q. Which ice melter has the lowest effective melting temperature?

A. There is no one answer, because there are many variables that determine an ice melter's effective melting temperature (EMT). These include the thickness of the ice, the temperature and humidity of the air, the type of ice and the size of the ice melter's granules. However, there are some generally accepted effective melting temperatures for several ingredients in their pure form (see the "General Melting Temperatures of Common Ice Melter Ingredients" table in this email.

Q. Does the size and shape of the ice melter material make a difference?

A. Yes. Small particles melt quickly, but may dissolve before they penetrate the ice. Large particles are more likely to

penetrate the ice, but they may not completely dissolve or create a brine solution. Also, pellet and flake shaped products can roll and blow away more easily than granules and crystals.

Q. Do all ice melters harm vegetation?

A. Like anything else, too much of one thing is not always good. If too much ice melter falls on or near your vegetation, that vegetation may have a hard time absorbing other nutrients it needs. Some ice melters can burn or kill grass on contact. Others use ingredients that are actually beneficial to plants. So, it's really a matter of the ice melter you choose and how you apply it that determines how your vegetation is affected. When choosing an ice melter, look for one that is safe on skin and won't harm pets, plants, concrete, or carpets.

Q. Can ice melter be used on roofs?

It is not recommended. Some ice melters may damage roofing materials, corrode roofing nails, and therefore destabilize a roof's structural integrity. Ice melters may also cause pitting of aluminum gutters and downspouts.

Q. Do all ice melters harm concrete?

A. All ice melters have the potential to accelerate the freeze/thaw cycle. However, an ice melter with ingredients that extend this cycle can help prevent damage to concrete.

Q. Why do some ice melters harden and clump during storage and others don't?

A. Some ice melters contain ingredients that are hygroscopic, which means they absorb moisture. Over a period of time, moisture can accumulate in the package, causing the product to harden and form clumps.

Q. What kind of shelf life do ice melters have?

A. Non-hygroscopic products have extended shelf life. Hygroscopic products, those containing calcium chloride and magnesium chloride, have a shorter shelf life when not stored properly.