

MELTING TEMPERATURE

Determining the effectiveness of ice melters at certain temperatures depends on the freezing point of the de-icers' brine and the amount of ice melter in solution. Some products have definite advantages over others in this area.

HOT TIP



Temperature performance considerations should be based on how well a de-icer will work when applied according to the labeled application rates. Maximum performance temperatures are laboratory measurements and are often impractical for field use rates and your pocketbook.

The key to understanding a products effectiveness begins with determining the test method used to support the advertised performance claim. While a product may advertise its maximum performance data from the lab (eutectic temperature) significantly different results might appear when applied at the recommended use rate on the package (practical use rate temperatures).

Eutectic temperatures are the lowest temperatures at which brine will still melt ice regardless of how much de-icer is used. Some de-icers, such as rock salt, may require application rates ten times the suggested use rate to reach their ideal concentration (23%) for maximum performance. As the solution melts the brine it is diluted and will refreeze again at a higher temperature.

Practical use rate temperatures are a realistic measurement of how a product will perform according to the labeled use rates (usually about one half to one pound of material per one hundred square feet). Practical use temperatures are those that show obvious melting at a certain temperature within twenty to thirty minutes of application.

