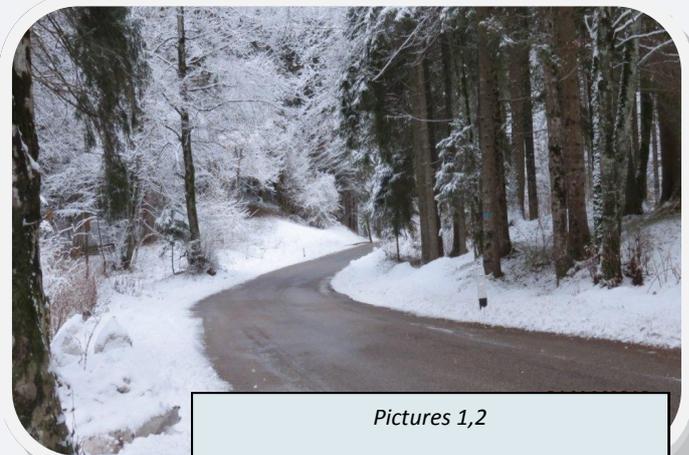


ICE FREE

ANTI ICING AND DEICING SOLUTIONS

Developed to serve as both an anti-icer and a de-icer, Ice Free has a place in every market including: utilities, railroads, the iron and steel industry, mining and mass transit. Ice Free has a freezing point below -50°F (-57°C), is safe and ready to use and will not trigger any environmental reporting requirements. Ice Free is equally effective in melting ice as it is in preventing the formation of ice. For this reason it can be used many different ways for roadway and pedestrian area anti-icing and de-icing.

Ice Free melts and prevents ice build-up. It is not corrosive to equipment and does not crystallize in nozzles. It eliminates costly downtime and minimizes hazardous working conditions. Ice Free aids in cleaning frozen build-up from track switches, platforms, walkways, roads, door tracks, couplers, chutes and hoppers and other equipment.



*Pictures 1,2
Before and after the application*

ANTI-ICING AGENT

Ice Free can be sprayed on pavement before a precipitation event to prevent the formation of ice. Ice Free acts as a barrier between the pavement and the falling ice and snow. This allows for easy mechanical removal of snow and ice by preventing the bonding of ice and snow packing to the surface.

Ice Free is most effective when applied uniformly to pavement before the precipitation occurs. The typical starting application rate is 0.5 gallons/1000 ft² (1 liter/ 50 sm). Mechanical removal of snow and ice is necessary to reduce the dilution of Ice Free. Periodic reapplication may be necessary if snow and ice begin to bind to the surface.

DE-ICING AGENT

Ice Free acts effectively as a de-icer. Liquid de-icers work best if applied in narrow bands (4-6 inches/ 10-15cm). The banding application minimizes the effects of product dilution, this enables Ice Free to penetrate the surface of the ice or snow pack and allow for easier mechanical removal.

On thin ice at temperatures near 32°F (0°C), Ice Free should be applied in a banded pattern at a rate of 1.0 gal/1000 ft². On thicker ice, Ice Free should be applied at a rate of 3.0 gal/1000 ft² (in general, 1 liter per 10 to 25 sm)

OTHER USES

Ice Free is an effective pre-wetting agent for road salt, sand and other solid de-icing materials. Ice Free will not clog applicator bars because it maintains a very low freezing point. Ice Free significantly improves the performance of any solid de-icing materials. The wetted material will stick to the surface instead of bouncing or rolling off the surface. Ice Free is applied at the spreader outlet for prewetting. Rates are 5% to 15% by weight of solid material. A typical 10% application would be 1.25 gallons (4,5 liter) per 100 pounds (45 kg) of sand, salt or solid de-icer.