

Caliber[®] M2000



ENGINEERED
PERFORMANCE

Convenience WITH Efficiency:

The use of Caliber M2000 allows for the treatment of the entire stockpile as it is being built, or whenever it is most convenient. Treating the entire stockpile prior to application to the roadway means that prewetting saddle tanks are no longer necessary.

Once the salt has been treated, the Caliber M2000:

- Increases the rate at which the salt begins working.
- Increases the penetration into ice and snow pack.
- Allows the use of salt at lower temperatures.
- Prevents the stockpile from freezing or “clumping”.
- Helps protect equipment from the corrosion caused by salt.

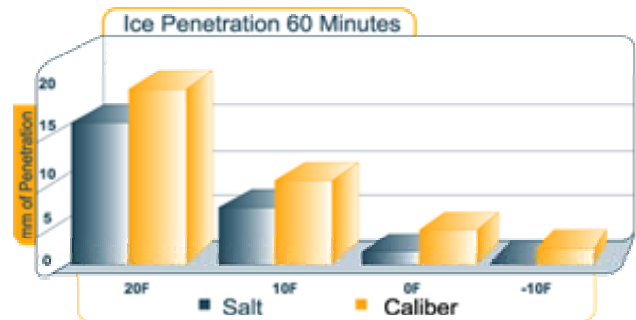
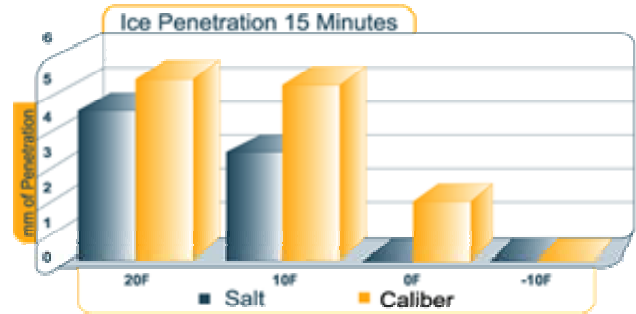
Enhanced Performance for Salt/Sand Pretreatment:

Caliber M2000 is a blend of the Caliber de-icer with 30% MgCl₂. Treating a stockpile with 8 gallons of Caliber M2000/ton of salt greatly enhances the performance of the salt, especially at colder temperatures. The increased performance, along with the reduced bounce and scatter experienced when using a wetted solid, translates into reduction of material required. Further, a stockpile treated with Caliber M2000 will be free flowing regardless of temperature. Due to the corrosion inhibiting properties of Caliber, treating salt with Caliber M2000 reduces the corrosion to the infrastructure and equipment caused by salt.



Typical Performance Properties:

One of the most important performance characteristics of salt is its ability to vertically penetrate ice and snowpack in order to reach the road surface. This penetration is also an indication of the melting capabilities of the salt at varying temperatures. The accompanying charts demonstrate the increased penetration (and melting performance) of salt treated with Caliber M2000 as compared to dry rock salt. The increased performance is dramatic at colder temperatures, allowing the use of salt at not previously possible.



Applications:

Caliber M2000 is designed specifically for stockpile treatment of salt and/or sand. When treating a salt stockpile, 6-10 gallons of Caliber M2000 per ton of salt is recommended. As a treatment for sand, 4-6 gallons of Caliber M2000 per ton of sand is recommended. This application allows the sand to “bite” into the ice or snowpack greatly reducing the bounce and scatter experienced with dry sand.

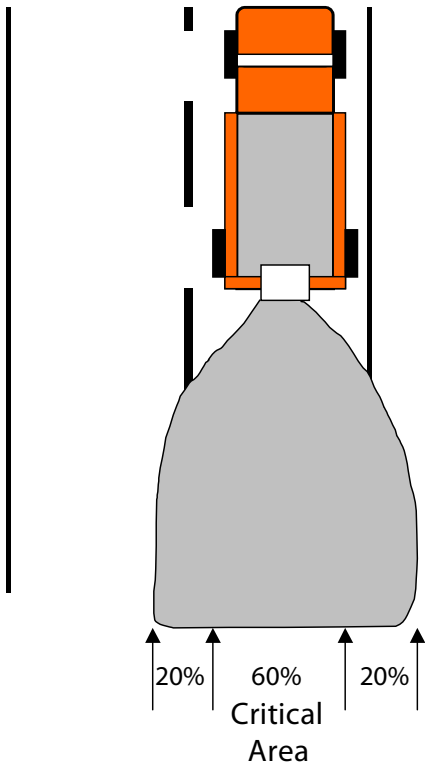
Typical Corrosion Performance:

Deicing Fluid	PNSDOT Relative Corrosion Rate
Distilled Water	0
Rock Salt (NaCl)	100
Calcium Chloride (CaCl ₂) 30%	121
Magnesium Chloride (MgCl ₂) 30%	80
Caliber M2000	8.1

Caliber M2000 stockpile treatment passes the test developed by the National Association of Corrosion Engineers Standard TM-01-69 as modified by the PNS. The specification set by the PNS is 70% less corrosive than salt. In this case, Caliber M2000 is just above that of distilled water.

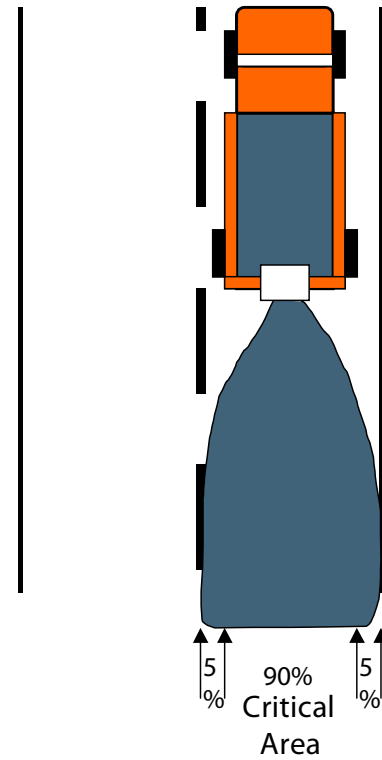
Compare the costs with Caliber M2000 treated salt.

Traditional Dry Salt Application



Pre-treating with Caliber M2000 allows you to reduce the amount of material applied per lane mile and still get the same amount where you want it. The solid deicer also becomes more effective.

Caliber M2000 Treated Salt Application



60%	Critical Coverage:	90%
180 lbs.	Critical Application Rate:	180 lbs.
\$25/ton	Material Costs:	\$25/ton
\$0	Salt	\$10
\$25/ton	Caliber M2000	\$35/ton
6.667 miles	Total Material Costs	10 miles
1 Ton of Finished Product Covers xx miles?		
\$3.75 per lane mile	Cost per lane mile	\$3.50 per lane mile

Now factor in fuel costs, labor, maintenance, overtime, etc and see how more cost effective pre-wetting is than traditional methods!!