

# Rock Salt Pre-Treatment Program

## WHAT IS ROCK SALT?



Rock salt is halite, which is the natural mined mineral form of table salt or sodium chloride (NaCl). While table salt has been purified, rock salt contains mineral impurities, so road salt typically is brownish or gray in color.

## WHEN IS ROCK SALT USED?

Rock Salt is applied by spreading material onto the pavement up to 3 hours prior to and throughout a winter storm event.

## PRE-TREATING

Pre-treating is a snow-fighting strategy used in anticipation of storms when accumulating ice or snow is predicted. If rock salt is applied just before a winter storm, rock salt will begin dissolving and working as soon as the first snowflake falls, which will help delay the accumulation of snow and ice on the pavement.

## WHY USE ROCK SALT?

Salt lowers the freezing/melting point of water, so in both cases the idea is to take advantage of the lower melting point.

Ice forms when the temperature of water reaches 32 degrees Fahrenheit (0 degrees Celsius). When you add salt, that temperature drops: A 10-percent salt solution freezes at 20 F (-6 C), and a 20-percent solution freezes at 2 F (-16 C). On a roadway, this means that if you sprinkle salt on the ice, you can melt it. The salt dissolves into the liquid water in the ice and lowers its freezing point.

The ability to pre-treat the streets will help to keep snow and ice from bonding to the pavement. This will allow the roads to return to bare pavement much more quickly once the storm has passed.

## **HOW IS ROCK SALT APPLIED TO THE ROAD WHEN PRE-TREATING?**

Motorists / residents can expect to see County Highway crews pre-treating the roads with rock salt using our specially modified trucks. These trucks will allow salt to be spread on the road surface at the correct volume per road mile. Material is spread in the center of the road. This allows the material to desolve and spread over the entire road without material being kicked off the road surface.



Pretreated subdivision street



Spreading salt during an event

## **WHAT SHOULD YOU DO WHEN FOLLOWING A VEHICLE APPLYING ROCK SALT?**

Vehicles applying rock salt usually will be traveling less than thirty miles per hour. Motorists should stay approximately 500 feet behind the vehicle.

## **WHAT ARE OTHER ADVANTAGES OF USING ROCK SALT?**

One of the biggest advantages of treating roads in Frederick County with rock salt is to prevent the buildup of ice and snow. Deicing is important for treating hills, slopes, steps, walkways and steep driveways. In many cases, keeping the ice from forming on the roads can significantly reduce injury caused from accidents, falling, slipping or sliding on the ice. It is important to apply salt before an oncoming storm and then immediately following. This helps prevent the rain or snow from forming a thick layer of ice and also makes it easier to clear the precipitation that falls on your treated surfaces.