



### The Science of Winter Road Treatments



Winter road treatment tactics depend on **temperature, precipitation type** and **traffic volume**. Salt isn't a silver bullet and may not be effective on every roadway.

#### The Basics

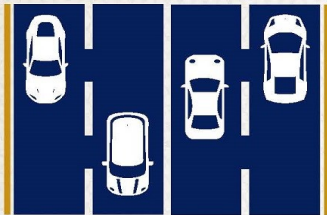


Less effective below 23-25 degrees

Most effective when crushed/spread by traffic

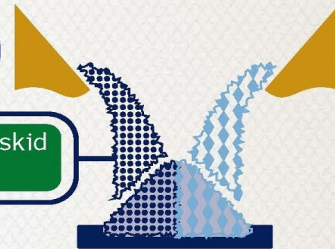


#### Salt Use and Road Types



Most effective with more traffic

Mixed with anti-skid or only anti-skid used on lower-traffic roads



When traffic is too low for salt to be effective, salt or salt/anti-skid mix is focused on hills, intersections sharp curves or freezing-prone areas

#### Salt and Temperature



Pre-wetting salt with salt brine can jump start melting, but is still most effective when pavement is 25 degrees or higher



On high-traffic roads, salt/anti-skid mix can be used when the road temperature is below 15 degrees



On low-traffic roads when the road temperature is below 15 degrees, falling snow is generally dryer and blows over the roadway, so salt is generally not used

More on winter operations and safety at [PennDOT.gov/winter](http://PennDOT.gov/winter)

#PAWinter

