

Winter maintenance salt treatment suggestions

Grip and pavement temperature

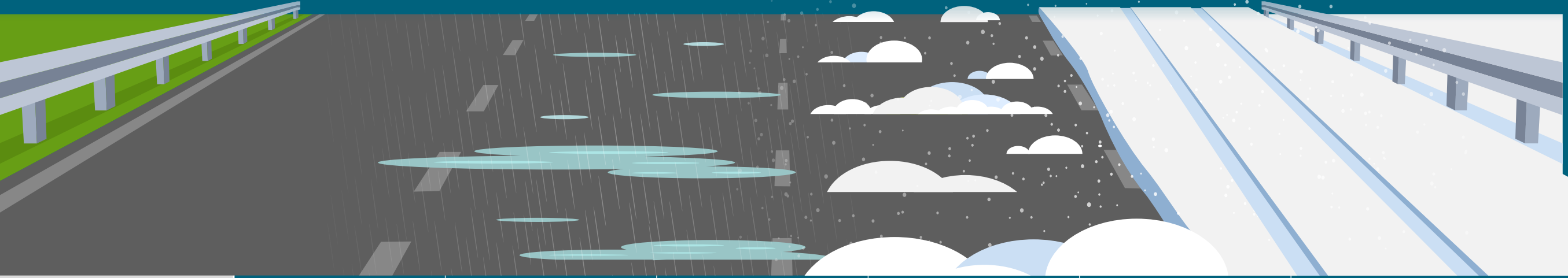


The amount of road friction is a critical factor in determining how much salt to spread, but it doesn't tell the whole story.

Pavement temperatures hovering near the freezing point and other factors combine to inform winter road maintenance organizations and road authorities of how much material to spread in different areas.

Created by Mark DeVries, Business Application Manager at Vaisala and other road maintenance industry professionals, this winter road treatment matrix incorporates friction with other factors to provide material and amount guidance. It is intended as a starting point to use according to your organization's needs and Levels of Service.

When pavement temperatures drop to 15° F (-9° C) or below, many winter road maintenance organizations use alternative chemicals: Follow manufacturer's recommendations and your own policies. Treatment rates are suggestions based on two-hour cycle times while plowing and using pre-wetted salt. Using high volumes of liquids would reduce these rates. Vaisala accepts no responsibility or liability with respect to these suggestions, and winter road maintenance organizations should follow internal policies and Levels of Service.



Grip	.82 - .60	.50 - .60	.40 - .50	.40 - .45	.30 - .40	< .30
Pavement temperature	30 - 34° F -1 - 1° C	25 - 32° F -4 - 0° C	20 - 25° F -7 - -4° C	15 - 20° F -9 - -7° C	15 - 20° F -9 - -7° C	< 15° F / -9° C
Roadway description	Dry to generally wet	Slushy to snow covered	Snow covered, perhaps wheel tracks	Snow covered, perhaps packed	Slippery, likely icy	Icy covered
Action: Rising pavement temperature	None	50 - 100 lbs/Inm 14 - 28 kg/1km	100 - 150 lbs/Inm 28 - 42 kg/1km	150 - 200 lbs/Inm 42 - 56 kg/1km	200 - 300 lbs/Inm 56 - 85 kg/1km	350 - 400 lbs/Inm 99 - 113 kg/1km
Action: Falling pavement temperature	50 - 100 lbs/Inm 14 - 28 kg/1km	100 - 150 lbs/Inm 28 - 42 kg/1km	150 - 200 lbs/Inm 42 - 56 kg/1km	250 - 300 lbs/Inm 71 - 85 kg/1km	250 - 300 lbs/Inm 71 - 85 kg/1km	400 lbs/Inm 113 kg/1km

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Learn more about how to drive improvement in your winter road maintenance strategy.

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