



**Hunt Club
Volkswagen**

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Winter Tires 101

Everything you need to know about snow tires.

In Canada, winter weather conditions can change quickly which can be challenging and dangerous for drivers. Snow, ice, and cold temperatures play havoc with our roads. Winter tires (or snow tires) significantly improve the handling characteristics of your vehicle under snow and ice conditions. Winter tires provide better traction on snow and ice due to their design (width, rubber composition, and tread design). Winter tires also improve the vehicle's braking performance and help reduce stopping distances during winter weather.

1. What is the difference between snow tires and all-season tires?

All-season tires are designed to perform well on all road conditions, although they are not optimized for severe ice and snow conditions. Snow tires are made with cold weather rubber compounds, channelling tread patterns, more sipes (the tiny slits in the tread) for wet surface control, and an open tread block pattern for better traction in deep snow.

The unidirectional, V-groove tires move slush and water out of the way better than other tread designs. The more open the tread design, the better the tire will perform against accumulated snow. The larger the tread blocks the better the handling, steering response, and transient response in snow. The more sipes the better the tire will work on ice. Treads and sipes on winter tires increase vehicle traction by up to 50%, which means you will be able to steer in control and stop faster on ice, slush, and snow.

The softer compounds used in snow tires give better traction and grip on snow and ice during cold temperatures, as the tires stay softer and will not

get rigid like an all-season tire. Better grip means that you are less likely to get stuck and, more importantly, it allows better control for steering and shorter stopping distance. The Ministry of Transport showed that a proper winter tire can improve braking up to 25% over an all-season tire and can improve collision avoidance by approximately 38%.

Use the analogy of shoes to winter boots for all-season to winter tires. You are able to walk on snow in any shoe but winter boots give you better traction!!

2. Do I need to put snow tires on all 4 wheels?

Snow tires need to be installed on all 4 wheels of your vehicle. If you have a front wheel drive vehicle and put snow tires only on the front, then the rear wheels will not have as much traction, which makes the vehicle more likely to spin out of control while cornering or braking. If you have a rear wheel drive vehicle and only put snow tires on the rear, the front wheels, which do the steering, will not have enough grip to provide power and control. Vehicle handling will be improved when identical tires are installed on all four wheels. Mixing tires with different tread patterns, internal construction, and size degrades the stability of the vehicle and is not recommended.

3. When is the best time to install snow tires?

The best time to install your winter tires is based on the temperature, not on the date (i.e. Thanksgiving, December 1, or first snowfall). The rubber compounds in all-season tires hardens too much to be optimal once the temperature hits $+7^{\circ}\text{C}$. It is below $+7^{\circ}\text{C}$ that winter tires start to make the biggest impact. You should have your winter tires installed long before the first snowfall. Many people wait until the first snowfall to call and get their snow tires installed. This may cause delays in getting the tires installed as service is so busy, which in turn could compromise your safety. Be on the safe side and have your tires installed early.

4. Can I leave them on all year round?

The softer tread compounds used in winter tires give optimal performance under winter conditions and these compounds break down very quickly in warm weather. Once the snow is gone and the temperature is up to $+7^{\circ}\text{C}$ you can put on your all-season tires or purchase summer tires, which will

provide better handling, better traction in the rain and a smoother, quieter ride.

5. My car has ABS and traction control – do I need winter tires?

ABS and Traction Control Systems (TCS) are great developments in vehicle construction, but neither provides more traction for your vehicle, they only help prevent drivers from over-braking or over powering the traction of their tires. These systems will not work if your tires cannot grip the road. The only way to increase traction is to install better tires. For winter driving, this means using winter tires.

In many vehicles equipped with a TCS, the use of all-season tires in the winter may require you to turn off the TCS under icy road conditions because your tires are not providing adequate grip for the system to function properly.

6. Should I have separate rims for my snow tires?

Having your snow tires on separate rims will save time and money when the tires are put on in the fall and taken off in the spring. The alloy rims on some vehicles can be damaged if the tires are mounted and dismounted too many times? Alloy rims become porous with corrosion which will not provide a good seal which in turn can winter tires to lose air. Also, mounting and dismounting tires can damage the beading of the tire, which will also cause a loss of air. We recommend a separate set of steel rims for your winter tires.

Remember – always drive according to the road conditions and visibility. Take your time and leave plenty of room between vehicles. Drive safely.

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