Winter tire benefits not understood: Report

Only half of Canadian drivers (52 per cent) use winter tires, despite their proven superior performance in all cold-weather road conditions.

TORONTO, November 26, 2012 – Canadian drivers lag in adopting winter tires in spite of evidence that their use saves lives and reduces road-accident injuries.

A 2011 study by the Quebec government shows that winter road-accident injuries have dropped by five per cent since winter tire use was made mandatory by law in 2008. Widespread use of winter tires is credited with preventing about 575 injuries per winter in the province.

These findings are supported by a new report from the Traffic Injury Research Foundation (TIRF) that concludes that winter tires decrease costly collisions. The report cites extensive research that shows that winter tires deliver superior traction, cornering and braking on all cold-weather road surfaces.

“All the evidence points to winter tires being the safest choice for driving in cold weather,” says Glenn Maidment, president of the Rubber Association of Canada (RAC), which represents tire makers. “Drivers should carefully consider whether winter tires are right for them and make an educated choice.”

This fall tire makers are urging motorists to get the facts about winter tires. A wealth of on-line information about the performance advantages of winter tires is available at the RAC’s website, www.rubberassociation.ca.

The TIRF report, entitled Winter tires: A Review of Research on Effectiveness and Use, stresses that the benefits of winter tires are not well understood and clarifies commonly held myths about winter tires.

Many motorists, for example, think that winter tires are only useful in regions with lots of snow. In fact, research shows that, once temperatures drop below seven degrees Celsius, winter tires perform better whether the road surface is dry, snow covered, slushy or icy. Winter tires feature specialized rubber compounds that retain elasticity in temperatures below -30 degrees Celsius and treads that grip at cold temperatures. In fact, winter tires deliver up to 50 per cent more cold-weather traction than all-seasons.

Another misconception is that all-season or summer tires provide sufficient traction in winter.

One of the most important advantages of winter tires is reduced stopping distance when braking. According to research cited by the TIRF report, at temperatures just below freezing on dry pavement stopping distance for vehicles with all-season tires can be as much as 30 per cent longer than for vehicles with winter tires. Winter tires have also been shown to have better traction on a snowy surface at -40 degrees Celsius than an all-season tire has at plus four degrees Celsius.

Some motorists avoid winter tires because their vehicles are equipped with Anti-lock Braking Systems, All-Wheel Drive or four-wheel drive. The TIRF report notes that these systems require sufficient traction to be effective and that winter tires provide that needed traction.

Another commonly believed myth is that two winter tires, rather than a set of four, is sufficiently safe. Mixing different types of tires creates a traction imbalance between the front and rear
wheel positions and can cause a vehicle to “over steer” (when the winter tires are mounted on the front axle) or “under steer” (when the winter tires are on the rear axle). These unsafe conditions can make a vehicle difficult to control, particularly when cornering.

Proper tire inflation is also important during the winter-driving month. Tires that are under-or-over inflated have a smaller footprint on the road surface, which lessens their grip. The result is reduced stopping and handling capabilities and wasted fuel.

Tire inflation pressure can drop quickly during cold snaps. Every five degrees Celsius change results in about one psi change in pressure, so a temperature drop of 15 degrees Celsius would result in 10 per cent or three psi under-inflation. During winter, tire makers recommend measuring tire inflation frequently using a reliable tire gauge to ensure tires are properly inflated to the vehicle manufacturer’s recommendation.

“Winter tires and proper inflation should be considered driving essentials from December to April,” says Maidment. “Motorists should also practice defensive driving and keep their vehicles properly maintained and prepared for winter driving.”

When buying winter tires, motorists should look for the mountain snowflake symbol on the sidewall. Tires with this symbol meet or exceed tire industry snow traction requirements.

Learn more by visiting www.rubberassociation.ca and click on winter driving.

Sidebar:

**Winter Tire Buyer’s Check List**

Whether you live in the city or country, or whether you drive a big or small vehicle, winter driving conditions will impact your vehicle’s performance.

When deciding whether to install winter tires, ask yourself the following questions:

- Do you live where cold temperatures are common?
- Do you drive on icy or snowy roads?
- Do you have to use your vehicle everyday, regardless of the weather?
- Do you drive off main streets and roads in winter?
- Do you drive early in the morning or late at night in winter?
- Do you drive nearly the same speed regardless of the temperature?

If you answered yes to one or more of these questions, winter tires may be right for you. Talk to your tire retailer about your driving habits and what kind of conditions you drive in and what kinds of winter tires are best suited for you.