

Tire Terminology

Air Pressure:	The amount of air inside the tire pressing outward on each square inch of tire, expressed in pounds per square inch (psi) or kilopascals (kPa), the metric designation for air pressure.
Alignment:	The state in which all wheels on a vehicle are pointed in the optimum direction relative to one another.
All-Season Tires:	Tires that are designed for use on dry and wet pavement and also provide traction on snow and ice.
Aspect Ratio:	The percentage relationship of a tire's height to its section width. The most common is 75, with the range continuing downward (65, 60, etc.) to 35. Low aspect ratio (or "series") tires are also referred to as low profile.
Balance:	The state in which a tire and wheel spin with all their weight distributed equally.
Bead:	A round hoop of steel wires, wrapped or reinforced by ply cords, that is shaped to fit the rim; it holds the tire onto the rim.
Belt:	A rubber-coated layer of cords that is located between the plies and the tread. Cords may be made from steel, fibreglass, rayon, nylon, polyester or other fabrics.
Casing:	The tire body beneath the tread and sidewalls.
Cold Inflation Pressure:	The amount of air pressure in a tire, measured in kilopascals (kPa) or pounds per square inch (psi), before a tire has built up heat from driving.
Cord:	The strands of fabric forming the plies or layers of the tire. Cords may be made from steel, fibreglass, rayon, nylon, polyester or other fabrics.
Contact Patch:	The portion of the tread that makes contact with the road.
Friction:	The force between the tires and the road surface that causes the tire to grip the road.

Groove:	The space between two adjacent tread ribs; also called tread grooves.
Highway Tires:	Also called Summer tires; designed for wet- and dry-weather driving, but not for use on snow and ice.
Hydroplaning:	A floating effect caused by tires losing contact with a surface covered with water.
Innerliner:	The innermost layer of a tubeless tire. The innerliner prevents air from permeating through the tire.
Kilopascal (kPa):	The metric unit for air pressure. There are 6.9 kPa to 1 psi.
Load Index:	An assigned number ranging from 0 to 279 that corresponds to the load carrying capacity of a tire.
Maximum Inflation Pressure:	The maximum air pressure to which a cold tire may be inflated, and the number is found moulded onto the sidewall. It is often different than the vehicle manufacturer's recommended operating pressure.
Overall Diameter:	The diameter of the inflated tire, without any load.
Overall Width:	The distance between the outside of the two sidewalls, including lettering and designs.
Plus-Sizing:	An option allowing drivers to customize their vehicle by mounting low-profile tires on wider rims of one or two inches greater diameter, usually enhancing vehicle appearance, handling and performance.
Ply:	A rubber-coated layer of fabric containing cords that run parallel to each other, extends from bead to bead and goes between the innerliner and belts or tread.
Pounds per square inch (psi):	The imperial unit for air pressure.
Radial Ply Tire:	A type of tire with plies arranged so cords in the body run at 90 degree angles to the centre line of the tread.
Rim:	A metal support for a tubeless tire or a tire and tube assembly upon which the tire beads are seated. Often referred to as wheel or wheel rim.

Rim Diameter:	The diameter of a tire rim, given in nearest whole numbers (e.g. 15 inches).
Rim Width:	Distance between the two opposite inside edges of the rim flanges.
Rolling Resistance:	The force required to keep a tire moving at a uniform speed. The lower the rolling resistance, the less energy needed to keep a tire moving.
Rotation:	The changing of tires from front to rear or from side to side on a vehicle according to a set pattern; it provides even treadwear.
Section Height:	The height of a tire, measured from rim to the outer tread.
Section Width:	The distance between outside of sidewalls, not including any lettering or designs.
Shoulder:	The area of a tire where the tread and sidewall meet.
Sidewall:	The portion of a tire between the tread and the bead.
Sipes:	Special slits in a tread that improve traction when the road surface is wet or has dust, dirt, sand, snow or other material on it.
Size:	The combination of tire width, construction type, aspect ratio and rim size used in differentiating tires.
Skid:	To slip or slide on the road when tires lose their rolling grip.
Snow Tire:	Often referred to as Winter tires, a special type of tire with a tread and compound that gives better traction in snow and other extreme winter conditions.
Speed Rating:	An alphabetical code (A–Z) assigned to a tire indicating the range of speeds at which the tire can carry a load under specified service conditions.
Tire:	A precisely engineered assembly of rubber, chemicals, fabric and metal designed to provide traction and cushion road shock and to carry a load under varying conditions.
Tire Identification	A code moulded into the sidewall of a tire signifying

Number (TIN):	that the tire complies with Transport Canada requirements. The TIN includes an alphanumeric designator that can also identify the tire's manufacturer, production plant, date of production and brand.
Tire Information Placard:	A metal or paper tag permanently affixed to a vehicle that indicates the appropriate tire size and inflation pressure for the vehicle, as well as rim size and load capacity information.
Tread:	That portion of a tire that comes into contact with the road. It is distinguished by the design of its ribs and grooves.
Treadwear Indicator:	Narrow bands, sometimes called "wear bars," that appear across the tread of the tire when only 2/32 inch of tread remains.
Tread Width:	The width of a tire's tread.
Traction:	The friction between the tires and the road surface, or the amount of grip provided.
Uniform Tire Quality Grading (UTQG):	A tire information system that provides consumers with ratings for a tire's traction (from AA to C) and for temperature (from A to C). Tread wear is normally rated from 60 to 620. Ratings are determined by tire manufacturers using government-prescribed test procedures and are moulded into the sidewall of the tire.
Wear Bars:	See <i>Treadwear Indicator</i> .