TYRE RANGE 2020
CAR, SUV-4X4 AND VAN

IN CONTROL

SAFETY

TECHNOLOGY

EFFICIENCY

SUSTAINABILITY

NEW Cinturato™

POWER IS NOTHING WITHOUT CONTROL
MARKING

Marked tyres can be recognized from a specific symbol on the sidewall that indicates the tyre’s co-development with a specific car manufacturer. These markings indicate that a tyre has been homologated by the vehicle’s manufacturer and is the perfect match for the model that it has been developed for. These tyres are the result of a strong joint effort of technological development between the engineers of both Pirelli and the most prestigious car manufacturers and, therefore, are the only tyres that can enhance the performances of the cars. They represent the peak of a state-of-the-art fine tuning process that completes the most recent technological developments in the automotive industry. Only these tyres are specifically designed to enhance the car’s performances while assuring a unique driving experience. For years Pirelli has been the leading provider of premium and prestige original equipment fitments with over 3400 homologation approvals. Pirelli will continue to build on these achievements for the vehicles of the future.

<table>
<thead>
<tr>
<th>MARKING</th>
<th>OEM/VEHICLE</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>ALFA ROMEO</td>
<td>ARR: Alfa Romeo Racing Special marking for Alfa Romeo 4C Optional Racing.</td>
</tr>
<tr>
<td>ALP</td>
<td>ALPINA</td>
<td>This new marking is used for some specific Alpina vehicles.</td>
</tr>
<tr>
<td>AMP</td>
<td>ASTON MARTIN</td>
<td>All new Aston Martin tyres have these markings. Tyres are developed specifically for the vehicle’s characteristics.</td>
</tr>
<tr>
<td>AO</td>
<td>AUDI</td>
<td>AO: Used for new Audi’s models. AOE: Specific Marking for Audi’s run-flat fitment. From now on Audi will add a serial number to the latest homologated tyre spec(AO, AO1, AO2).</td>
</tr>
<tr>
<td>AMG</td>
<td>AUDI QUATTRO</td>
<td>All new Audi Quattro models have specifically marked tyres.</td>
</tr>
<tr>
<td>B</td>
<td>BENTLEY</td>
<td>New vehicles are fitted with this specific marking. BC: Bentley Comfort BL: Bentley Low Rolling Resistance</td>
</tr>
<tr>
<td>BMW</td>
<td>BMW - BMW-M</td>
<td>All new vehicles from this vehicle manufacturer are fitted with tyres with this specific marking.</td>
</tr>
<tr>
<td>DALLARA</td>
<td>DALLARA</td>
<td>The latest marking for new vehicles from Dallara.</td>
</tr>
<tr>
<td>F</td>
<td>FERRARI</td>
<td>This marking is used for some specific Ferrari versions.</td>
</tr>
<tr>
<td>GENESIS</td>
<td></td>
<td>The latest marking for new vehicles from Genesis.</td>
</tr>
<tr>
<td>HYUNDAI</td>
<td></td>
<td>The new marking for the sporty version of Hyundai new vehicles.</td>
</tr>
<tr>
<td>J</td>
<td>JAGUAR</td>
<td>This marking is used for selected Jaguar fitments. JRS is specific to some XK-RS fitments and F-Type fitments.</td>
</tr>
<tr>
<td>L</td>
<td>LAMBORGHINI</td>
<td>All Pirelli tyres fitted to new vehicles from this manufacturer have this marking and are developed for the particular characteristics of these vehicles.</td>
</tr>
<tr>
<td>LS</td>
<td>LOTUS</td>
<td>LS is used for the new Lotus Exige S. These tyres are designed for the particular characteristics of this vehicle.</td>
</tr>
<tr>
<td>MGT</td>
<td>MASERATI</td>
<td>This marking has been introduced by Maserati for all the models in production from 2013.</td>
</tr>
<tr>
<td>MCLAREN</td>
<td></td>
<td>McLaren vehicles are fitted with tyres with this specific marking, designed for the particular characteristics of these vehicles.</td>
</tr>
<tr>
<td>MERCEDES-BENZ</td>
<td>MO</td>
<td>MO: Mercedes Original. MOE: Mercedes Original. Extended. Specific marking for the run-flat fitment of Mercedes. MO-S: new marking dedicated to tailor made tyres with Pirelli technology for Mercedes-Benz car models. MO-V: new marking dedicated to light truck/pick-up vehicles</td>
</tr>
<tr>
<td>MERCEDES-BENZ AMG</td>
<td>MO1</td>
<td>MO1 is used for specific fitments of Mercedes AMG.</td>
</tr>
<tr>
<td>NIO</td>
<td></td>
<td>The latest marking for the new vehicles from NIO.</td>
</tr>
<tr>
<td>PAGANI</td>
<td></td>
<td>Vehicles from Pagani fit tyres with this specific marking.</td>
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<tr>
<td>PORSCHE</td>
<td></td>
<td>All the new Porsche vehicles fit tyres with this marking. All these markings are developed for the particular characteristics of these vehicles. Front and rear, if present, have the same N number.</td>
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<tr>
<td>VOL</td>
<td>POLESTAR</td>
<td>All new vehicles from Volvo and Polestar fit tyres with this specific marking.</td>
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</tbody>
</table>
HOMOLOGATIONS
ACHIEVED SUPREMACY

MORE THAN 3420 HOMOLOGATIONS

MORE THAN 650 RUN FLAT HOMOLOGATIONS

MORE THAN 230 PNCS HOMOLOGATIONS

MORE THAN 40 SEAL INSIDE HOMOLOGATIONS

OVER 1220
OVER 670
OVER 520
OVER 940

OVER 190
OVER 240
OVER 60
OVER 150

OVER 150
OVER 15
OVER 45
OVER 10

ALMOST 10
ALMOST 15
ALMOST 15
OVER 10

PIRELLI | TYRE RANGE 2020
<table>
<thead>
<tr>
<th>Category</th>
<th>Tires Available</th>
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<tbody>
<tr>
<td><strong>SUMMER AND ALL SEASON</strong></td>
<td>P ZERO™, P ZERO™ GT, P ZERO™ ROSSO, P-ZERO™ CORSA, P-ZERO™ CORSA SYSTEM, P-ZERO™ CORSA</td>
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<td><strong>SPORTY</strong></td>
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<td><strong>URBAN</strong></td>
<td>CINTURATO P7™ VERDE, CARRIER™, SCORPION™ VERDE ALL SEASON, SCORPION™ VERDE ALL SEASON</td>
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<td><strong>ALL TERRAIN</strong></td>
<td>SCORPION™ MTR, SCORPION™ ALL TERRAIN PLUS, SCORPION™ ATR, SCORPION™ ALL TERRAIN PLUS</td>
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</table>

**CARRIER™**

PIZERO, PZERO CORSA, CORSA SYSTEM, PZERO GT, PZERO ROSSO, CINTURATO, CINTURATO P7, CINTURATO P1, SCORPION, SCORPION VERDE, SCORPION ZERO, CARRIER, PNCS, and are trademarks of Pirelli Tyre S.p.A.
Pirelli’s response to customers who prefer to choose a tyre which has a low impact on the world we live in. This range combines traditional performance and safety with the new ecological features of the “Green Performance” philosophy: thanks to the use of new eco-friendly materials and low rolling resistance, they help to reduce the vehicle’s CO₂ emissions.
SAFETY, EFFICIENCY, SUSTAINABILITY
AND TECHNOLOGY AT OUTSTANDING LEVELS FOR THE FUTURE GENERATION CARS

NEW CINTURATO P7™ is the latest Pirelli Summer high performance for premium cars and crossovers with a strong focus on wet performances, mileage and rolling resistance. These features are perfectly balanced, making the new Cinturato the first choice of the best carmakers. The new tread pattern design and profile, in addition to the innovative compound materials, guarantee extreme levels of SAFETY, EFFICIENCY, SUSTAINABILITY and TECHNOLOGY. Leading to a reduction of braking distance, fuel consumption, noise emissions and the presence of the latest technological innovations, NEW CINTURATO P7™ is the best choice for being always IN CONTROL of your vehicle.

MAIN HOMOLOGATIONS

Pirelli’s first ‘Green Performance’ tyre, CINTURATO P7™ is a perfect combination of low rolling resistance, plastic and acoustic comfort and good mileage. This is made possible by advanced compounds, a specific structure and tread pattern design. This also guarantees excellent braking and handling performances.

MAIN HOMOLOGATIONS
CINTURATO P1™ VERDE offers good control in both dry and wet conditions while assuring a comfortable driving experience. The new materials and innovative compounds, together with aerodynamic sidewalls and low weight have allowed a reduction of rolling resistance, especially in urban situations.

IDEAL FOR URBAN MOBILITY

CINTURATO P1™ VERDE

MAIN HOMOLOGATIONS

1. HYBRID MATERIALS AND INNOVATIVE TREAD PATTERN DESIGN
   - More safety on both wet and dry conditions.

2. OPTIMIZED TREAD DESIGN WITH SPECIFIC PITCH SEQUENCE
   - Quietness inside the vehicle.

3. TENSION CONTROL AND NEW MOULD PROFILE
   - More comfortable driving experience.

4. NEW MATERIALS AND INNOVATIVE COMPOUNDS AERODYNAMIC SIDEWALLS AND LOWER WEIGHT
   - Lower fuel consumption and CO₂ emissions.

PERFORMANCE AT ITS HIGHEST LEVELS

The P ZERO™ stunned the automotive world when it appeared in 1987, as Pirelli’s very first Ultra High Performance tyre. P ZERO™ is also associated with some of the best-known stars and celebrities, who have lent their image to its iconic advertising campaigns. P ZERO™ is used in Formula 1® as the maximum expression of sportiness. As in Formula 1®, the P ZERO™ family is declined in different types of tread patterns, depending on the characteristics of the car and of the market. It’s a brand that has made Pirelli the world leader in High Performance tyres.

PROFILE

P ZERO™ FAMILY

CAR SUMMER URBAN

AVAILABLE TECHNOLOGIES

DRY WET SPORT COMFORT MILEAGE
THE PERFECT FIT
FOR EVERY CAR PERFORMANCE

P-ZERO™

Extreme Performances

Original Equipment Performances

Custom Performances

P-ZERO™ CORSA

P-ZERO™

Original Equipment Performances

P-ZERO™ NERO GT

Custom Performances

P-ZERO™

P-ZERO™

P-ZERO™

P-ZERO™

P-ZERO™

P-ZERO™

P-ZERO™

MAIN HOMOLOGATIONS

CAR-SUV UNI-Suddenly

SUMMER UNI-Suddenly

SPORTY

AVAILABLE TECHNOLOGIES

COMFORTABLE DRIVING TECHNOLOGY FOR ELECTRIC VEHICLES

PUNCTURE CONTROL NO PRESSURE DRIVE

DRY

WET

SPORT

COMFORT

MILEAGE

P-ZERO™ is the unique Ultra High Performance product combining Pirelli’s knowledge gained from competitive Motorsport with Pirelli’s alliance with the top car manufacturers, granting the perfect fit for the performance of each car. New P-ZERO™ has a range developed with the most prestigious OEMs that is able to meet any customisation needs in terms of size, technology and seasonality.

CUSTOMISED INNER TREAD DESIGN

Superior safety in wet conditions thanks to the high silica content. Better traction and riding comfort with high pitch sequence.

CUSTOMISED TREAD COMPOUND SOLUTIONS

Improved rolling resistance, wet performance and better mileage.

CUSTOMISED OUTER TREAD DESIGN

Low noise emission and low rolling resistance achieved by optimised pitch sequence and siping design.
A milestone in the development of the Pirelli range, P ZERO™ has been chosen as original equipment for the most performance oriented and powerful car models on the market. Its asymmetric tread pattern improves braking performance and enhances handling and control. Excellent in wet conditions with improved safety in potential aquaplaning situations. Its new nano-composite compound ensures maximum grip and stability. The structural integrity of the tyre improves steering response, which is essential in sports driving, and also ensures uniform tread wear. The special “s-shaped” grooves in the tread area deliver lower cabin noise levels, enhancing driver’s comfort.

P ZERO™ NERO GT is targeting those consumers who want to fit Pirelli on their medium-large sedans and sporty cars with a focus on constant performance and comfort along all tyre life. The latest compound has a balanced content of silica in order to enhance wear resistance without compromising the sporty feeling of the product in both dry and wet conditions.
With the evolution of this segment, dedicated to SUV/Crossover applications, the product range features innovative technological solutions without sacrificing safety and performance. Comfort, handling and eco awareness, considered in the production of new tyres, ensure that new SUV tyres are able to fulfill the most demanding OEMs and customer needs.
GREEN PERFORMANCES FOR SUV AND CROSSEOVERS

SCORPION™ VERDE is Pirelli’s SUVs and crossovers product that provides excellent grip and stability in any road condition. The low rolling resistance and reduced weight ensure lower fuel consumption and CO2 emissions, thus combining savings, respect for the environment, comfort and safety on all road surfaces.

HIGH PERFORMANCES AND SAVING

SCORPION™ VERDE ALL SEASON is Pirelli’s Green Performance Crossover & SUV tyre that takes full advantage of the most modern resources, structures and tread patterns to guarantee savings, respect for the environment, comfort and safety on all road surfaces. The lateral stability and the traction on wet and light snow ensure all season performances. SCORPION VERDE™ All Season features the M+S marking engraved on the sidewall.

**MAIN HOMOLOGATIONS**

1. DEDICATED SHOULDER PROFILE
   - Improved stability also for big SUVs.

2. OPTIMISED PITCH SEQUENCE AND PHASING
   - Lower internal noise.

3. OPTIMISED PROFILE AND INNOVATIVE MATERIALS
   - Reduced fuel consumption and CO2 emissions plus -30% of perceived noise (-1dB).

4. INNOVATIVE COMPOUND WITH SPECIAL POLYMERS
   - Improved wet performance.

**AVAILABLE TECHNOLOGIES**

1. NO PRESSURE DRIVE
2. PUNCTURE CONTROL
3. COMFORTABLE DRIVING

**FEATURES**

1. LATERAL SIPING AND HIGH LATERAL SIPING DENSITY
   - All Season performance.

2. LARGE CONTACT PATCH AND FOUR LONGITUDINAL GROOVES
   - Safety in wet.

3. OPTIMISED PITCH SEQUENCE AND PHASING
   - Lower internal noise.

**AVAILABLE TECHNOLOGIES**

1. NO PRESSURE DRIVE
2. PUNCTURE CONTROL
3. COMFORTABLE DRIVING
THE HIGH PERFORMANCES FOR SUVS

SCORPION™ ZERO ALL SEASON is the new UHP SUV All Season product developed for premium and prestige OE Car Makers engineered to maximize the performances during all the seasons, in every driving condition, also on light snow-covered roads. The perfect choice for sporty SUV, it offers excellent performance on dry and wet and grants the perfect fit for every vehicle. The innovative compounds combined with the asymmetric and optimised pattern provide UHP performance during all seasons, assuring outstanding levels of safety and comfort and minimizing the noise level.

1. **HIGH SIPE DENSITY**
   Over 30m of sipes (93% more than the Scorpion Zero Asimmetrico) provide excellent grip and traction in a winter season, resulting in a great performance on snowy surfaces.

2. **CURVED SIPES**
   Curved sipes in the internal blocks allow a better traction on snow, leading to increased safety and control on snow.

3. **OPTIMISED TREAD DESIGN WITH CURVED GROOVES AND BRIDGES**
   Noticeable noise reduction for improved driving comfort.

4. **FOUR LONGITUDINAL GROOVES**
   The longitudinal grooves guarantee excellent water expulsion; the external one, being smaller, provides pattern adaptability, increasing safety on dry surfaces. The lower tread depth increases dry braking performance without compromising wear performance.

OFF-ROAD PERFORMANCES FOR 4X4 AND PICK-UPS

As a versatile and safe all terrain tyre, the SCORPION™ ATR features excellent traction in all road conditions with a performance ratio of 50% on-road and 50% off-road. Off road it is tenacious and reliable. On road it provides comfort, excellent traction and resistance to wear. It also delivers a high resistance to aquaplaning and low rolling noise, which enhances the acoustic comfort in the cabin.

1. **ROBUST CARCASS AND REINFORCED SIDEWALL AREA**
   High resistance to damage.

2. **WIDE, RUGGED SHOULDER BLOCKS**
   Improved traction and braking efficiency.

3. **CURVED CENTRAL GROOVES**
   Continuous traction in off-road situations.
PIRELLI’S NEW SCORPION™ ALL TERRAIN PLUS replaces the Scorpion™ ATR to offer a performing off-road tyre in the most severe conditions. The new aggressive tread pattern offers a performance ratio of 40% on-road and 60% off-road. Its longitudinal grooves assure excellent water expulsion, while the high density siping guarantees traction for safety and performance.

**FEATURES**

1. **IRREGULAR BLOCKS OF GREAT DIMENSIONS WITH SHARP EDGES**
   - Great traction on slippery surfaces and control in off-road conditions.

2. **HIGH DENSITY SIPING**
   - Safety and comfort on all surfaces.

3. **GROOVE CONES**
   - Self-cleaning pattern for integrity and safety.

4. **OPTIMIZED CONTACT PRESSURE DISTRIBUTION**
   - Improved mileage and safety.

**MAIN HOMOLOGATIONS**

The SCORPION™ MTR is developed specifically for custom-built pick-up’s and 4x4 vehicles, for a dedicated off-road application with a performance ratio of 20% on-road and 80% off-road. The specialized tread pattern design delivers a strong mud expulsion and excellent traction.

1. **WIDE CENTRAL TREAD BLOCKS**
   - Self cleaning action and excellent traction.

2. **REINFORCED SHOULDER BLOCKS**
   - High resistance to rugged roads.
The VAN category comprises a wide range of vehicles: from light vans to microvans, pick-ups, small/medium commercial vehicles with weights up to six tons. In recent years these vehicles have become even faster, safer, more versatile, more reliable and more comfortable.

Pirelli has developed a specifically designed range of tyres which match the performance characteristics of car tyres with the traditional characteristics of commercial vehicle tyres.

CARRIER™ offers users excellent mileage, rolling resistance and safety in wet conditions making it arguably the most complete van tyre on the market.

This product has been completely redesigned; it features an all new tread pattern, compound and profile geometry to provide it with all the attributes drivers are looking for in a premium van product.

In addition, the CARRIER™ covers an estimated 98% of the replacement summer European van tyre market — something that cannot be said by any other competitor tyre line.

1. NEW COMPOUND AND ENHANCED PROFILE GEOMETRY
   Better value for money.

2. NEW COMPOUND AND TREAD DESIGN WITH 3 WIDE LONGITUDINAL GROOVES
   Safety in wet conditions.

3. OPTIMISED PROFILE AND INNOVATIVE MATERIALS
   Less fuel consumption leading to savings at the pump.
PIRELLI ELECT™ TECHNOLOGY

PIRELLI’S OFFER FOR ELECTRIC VEHICLES

ELECT™ is the technology developed by Pirelli to offer a wide range of benefits for electric and plug-in hybrid vehicles, thanks to a specific set of technical features.

The ELECT™ marking on the sidewall identifies Pirelli tyres specifically developed for high performance electric and plug-in vehicles, in line with the Perfect Fit strategy.

RUN FLAT

DRIVE WITHOUT PRESSURE

RUN FLAT tyres mean safety. They provide greater control of the car in emergency conditions and allow you to continue driving safely even during a rapid loss of inflation pressure.

SEAL INSIDE™

PUNCTURE PROOF

SEAL INSIDE™ is a new tyre construction technology that allows to drive on without losing air pressure even after the tyre has been punctured by an external object, covering almost 85% of the possible accidental causes of pressure loss*.

PNCS™

COMFORTABLE DRIVING

The PIRELLI NOISE CANCELLING SYSTEM™ (PNCS) is a technology able to reduce the noise inside the vehicle thanks to a sound absorbing device applied to the inside circumferential wall of the tyre, reducing noise by half.
FUEL EFFICIENCY ASSOCIATED WITH THE TYRE’S ROLLING RESISTANCE

REDUCE FUEL CONSUMPTION
The tyre contributes up to 30% of the overall fuel consumption for a car and up to 35% for a truck. In the EU Regulation, rolling resistance is expressed in grades, ranging from A (best) to G (worst). According to United Nations ECE regulation 117/02, new requirements for tyres produced from 1st November 2014 were introduced. Tyres with “F” grading will no longer be accepted in the EU for all C1 and C2 Class Tyres (Car, SUV and Light Truck). The regulation is valid for both new and existing products, while all tyres produced before 1st November 2014 (DOT 4314) without UN ECE 117/02 can be sold in Europe for an additional period of 30 months. From November 1st 2018 (Date of Production 4318), all tyre manufacturers will not be allowed to produce C1 Tyres with Rolling Resistance coefficient higher than 10.5 N/AH. From November 1st 2018 (Date of Production 4318), all tyre manufacturers will not be allowed to produce C2 Tyres with Rolling Resistance coefficient higher than 9 N/AH.

SAFE ASSOCIATED WITH THE TYRE’S WET GRIP

INCREASE SAFETY ON WET
Wet grip is one of the most important safety characteristics of a tyre. Excellent grip in wet conditions results in shorter braking distances. According to United Nations ECE regulation 117/02, new requirements for tyres produced from 1st November 2014 were introduced. Tyres with “F” grading will no longer be accepted in the EU for all C1 Class Tyres (Car and SUV). The regulation is valid for both new and existing products, while all tyres produced before 1st November 2014 (DOT 4314) without UN ECE 117/02 can be sold in Europe for an additional period of 30 months.

EXTERNAL NOISE LEVEL (GIVEN IN DECIBELS)

REDUCE NOISE EMISSIONS
Traffic noise is an important environmental issue which is determined by several factors, such as: traffic volume, vehicle type, driving style and tyre/road interaction. The value indicated on the label is not the internal noise that the driver will perceive while driving, but the external one, that contributes to acoustic pollution. To reduce traffic noise, it is therefore appropriate to purchase tyres with low external rolling noise.

PIRELLI FOR SAFETY

The tyre is the ONLY element to make contact between the vehicle and the road. That is why using tyres correctly and maintaining them, as well as being aware of their characteristics, are fundamental elements to guaranteeing safety in any situation, to increasing your tyres’ lifespan and in saving money. Always remember, drive safely while respecting the environment.

CONSIDERABLE SHORTER BRAKING DISTANCE

ABS braking on a dry road surface (100-0 km/h) at 25°C

SUMMER TYRES 36 m

WINTER TYRES 32 m

Source: ADAC test

CONTRASTING FUEL SAVED
LITERS OF FUEL SAVED:

TOTAL CO2 SAVED:

CONSUMPTION:

SAVED:

THE REMAINING TREAD

CHECK THE TREAD’S DEPTH!

The tread’s depth should never be less than the legal limit, which for cars, caravans and heavy vehicles is 1.6 mm. Other than the legal limit requirements, in order to stay within the safety margin, Pirelli recommends that you replace your tyres when the tread is about 3 mm. Performance on wet roads decreases in proportion to the tread’s thickness.

DECREASED STOPPING DISTANCE

Tyre pressure has a direct influence on your safety. You should check the pressure regularly, at least once a month, when the tyres are cold and always before going on long trips. The stopping distance with correctly inflated tyres is less than that of an under-inflated tyre.

TYRE PRESSURE

KEEP YOUR TYRES

CORRECT TYRE PRESSURE

UNDER-INFLATED TYRE

Source: internal Pirelli test 100% 106%

Indicative braking distance based on pressure.

SAFETY ASSOCIATED WITH THE TYRE'S WET GRIP

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TYRE PRESSURE

KEEP YOUR TYRES

CORRECT TYRE PRESSURE

UNDER-INFLATED TYRE

Source: internal Pirelli test 100% 106%

Indicative braking distance based on pressure.
TECHNICAL ADVICE/INFO

SIDEWALL MARKINGS

LEGEND
1. BRAND
2. PRODUCT NAME

READ TYRE SIZE

LOAD & SPEED

APPLICABLE LOAD (2)

RIM DIAMETER

TYRE CONSTRUCTION

ASPECT RATIO

TYRE WIDTH

Nominal section width expressed in millimetres.
Radial construction tyre.
Rim diameter, expressed in inches.
Load index. Indicates the load carrying capacity per tyre.
Speed symbol. Tyre's maximum speed.

LOAD INDEX / MAX LOAD CAPACITY PER WHEEL (KG)

<table>
<thead>
<tr>
<th>LOAD INDEX</th>
<th>KG</th>
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PRESSURE CONVERSION TABLE (BAR/P.S.I.)

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1 BAR = 100 KPA
CAR OWNERS’ ADVICE

1. TYRE SELECTION

• The selection of tyre size and type is a function of vehicle dimensions (rim diameter, speed code), of the maximum load per axle (load index) and of the type of vehicle used.
• It is not permitted to fit a vehicle with a tyre of lower size or load code or load index than those established by the vehicle manufacturer. The only exception allowed is that foreseen by the marking M+S on the side of the tyre. This symbol allows you to have a speed code different, but not inferior to ‘Q’. In this case the driver, as a matter of course, must respect the more restrictive speed limits imposed by the maximum speed allowed for the tyre.
• See also point 11 (Winter tyres).

2. FITTING AND REMOVAL

• Pirelli advises trusting the fitting and removal of tyres to specialist personnel who have the correct equipment to carry out these operations without causing damage to the tyre or vehicle.
• When the condition of the wheel rims must be checked. They must be clean and in good condition and be without cracks or rust.
• Never repair by welding, brazing, or any other techniques.
• Never exceed a pressure of 3.5 bar (50 psi) to seat a car tyre, or 4 bar (57 psi) for a truck or bus. Never seat the rim, reduce the pressure if the fitted pressure of use as indicated by the marking on the wheel or in the vehicle technical handbook.
• During the tyre inflation procedure, respect the safety norms regarding distance, position and use of a safety cap. Pirelli always recommend the use of a safety cage. Pirelli always recommend the use of a safety cage. Never exceed a pressure of 3.5 bar (50 psi) to seat a car tyre, or 4 bar (57 psi) for a truck or bus. Never seat the rim, reduce the pressure if the fitted pressure of use as indicated by the marking on the wheel or in the vehicle technical handbook.
• Tighten the wheel nuts of the type for the specific vehicle and wheel following the correct sequence, using a torque wrench. It is recommended to adhere to the torque prescribed by the vehicle manufacturer.
• At temperatures below 0° C, before fitting or removing a tyre it is not advisable to transfer the tyre / wheel to a heated area. The time required to warm a tyre sufficiently depends on various factors, indicatively 3 hours at a temperature of approximately 20° C.
• When new tyres have been fitted, drive at a moderate speed until the first 300 kilometers (185 miles). In particular for tyres with speed index H/V/W/Y/Z, limit speed for the first 50 kilometers (30 miles).

3. HOMOGENOUS TYRE FITMENT

• It is strongly advised that Pirelli tyres be fitted on all axles of a vehicle, that they are of the same tread pattern and that they are not fitted together with other brands, this is because different tyre constructions can have different ply steer angles. The PLY STEER ANGLE is the angle created between the actual direction of travel and the ideal direction of travel of the driver. A larger ply steer angle on the front axle generates UNDERSTEER and the vehicle tends to travel a curve with a larger radius. A larger ply steer angle on the rear axle generates OVERSTEER (danger of spinning of the rear of the vehicle).
• Whenever only 2 tyres are substituted it is recommended to fit the new tyres on the rear axle. This rule should be applied independently of the fact that the vehicle is front or rear wheel drive.
• For 4x4 vehicles it is recommended to substitute all 4 tyres simultaneously.

4. DIRECTION OF ROTATION

• To be sure to obtain the best performance from DIRECTIONAL tyres you must respect the indications on the sidewall regarding the sense of rotation and/or external sidewall if the tread design is ASYMMETRIC.
• There are no indications on the sidewall to be followed regarding the fitment of a SYMMETRIC tread design tyre.

5. INFLATION PRESSURE

• The pressures recommended by the vehicle manufacturer can be found in the technical manual of the vehicle.
• The pressures must be adequate on the basis of axle loads and vehicle speed. Driving with incorrect pressures is fundamental to maximise performance, braking, traction and life of the tyre.
• Under no circumstances should the cold pressures of tyres be inferior or superior to the pressures indicated in the technical manual of the vehicle. In any case, the pressures must never exceed the maximum pressure (cold) as indicated on the sidewall of the tyre (this value is expressed in psi).
• Never reduce the pressures when the tyres are hot. Even for tyres with minimum distance (1 km/mile or 2-3 minutes) tyres get hot and the pressure can increase by up to approximately 0.3 bar (equivalent to 4 psi).
• Under-inflation causes excessive flexing and therefore overheating of materials, resulting in deterioration of the tyre and a rapid/irregular wear of the tread in the shoulder area.
• Over-inflation causes a reduction of the contact area between the tyre and the road surface, increases the probability of accidental impact damage and rapid wear in the central tread area.

6. REGULAR CHECKS

• Tyres (also the spare tyre) must be regularly examined and the inflation pressures checked monthly, in any case, always before a long journey.
• Tyres whose tread depth is 1.6 mm or below (DTI – TWI) must be subjected to a control by specially trained personnel and substituted if necessary.
• Pirelli tyres wear unevenly in normal conditions and their indicators – TWI at the base of the main tread grooves, which indicate the minimum legal width of the tread (1.6 mm). When the depth of the tread grooves arrives to the level of these indicators, even if only at one point of the tread circumference, the tyre must be substituted.
• When the tyre (this value is expressed in psi).
• Never reduce the pressures when the tyres are hot. Even for tyres with minimum distance (1 km/mile or 2-3 minutes) tyres get hot and the pressure can increase by up to approximately 0.3 bar (equivalent to 4 psi).
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7. TYRE INVERSION

• Pirelli recommend operating a rotation procedure of the tyres as defined also in the technical manual of the vehicle. In the event that such a procedure is not specified, Pirelli, to optimise wear and mileage of the tyres advises to invert the Pirelli winter tyres with the rear axle tyres, without crossing them between right to left, every 8,000 - 10,000 km / 5,000 - 7,000 miles (20,000 km / 12,000 miles if a different tyre size or tread pattern is fitted on the front and rear axles).

8. VEHICLE ALIGNMENT

• By “vehicle alignment” it is intended the geometrical conditions of all the characteristic angles of a certain vehicle.
• It is advised to periodically check the geometry of a vehicle. These checks are necessary in the case that the tyres need to be replaced (due to wear of the tread).
• Every time a vehicle is fitted to a wheel rim the “fitted unit” must be checked, this is important both for safety and to maximise performance and life of the vehicle. These checks are necessary in the case that the tyres need to be replaced (due to wear of the tread).
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9. TYRE REPAIR

• Eventual holes in the tread area of a tubeless Pirelli tyre can be repaired (excluding Pirelli Run Flat tyres) if the diameter of the hole is not greater than 6 mm. The material used must adhere to the impermeable liner on the inside of the tyre, if the damaged area must be considered a permanent repair. If the hole is greater than 6 mm, or it is localised in the middle of the tread (ply steer angle), then the tyre must be replaced.
• Pirelli do not advise the use, even temporarily, of self-sealing materials on the inside of the tyre.
• Pirelli do not advise to repair tyres damaged by a specialist who can assess the damage or by someone who has used in any case after 5 years, independently of mileage and replacement. It is advisable to have all tyres checked, subsequently the spare wheel and consider the run flat tyres.
• When balancing should be checked periodically.

10. RUN FLAT TYRES

• Pirelli certify that following loss of air, Run Flat tyres can continue in service for 80 km (50 miles) at a maximum speed of 80 km/h (50 mph).
• In any case always refer to the technical manual of the vehicle.
• Run Flat tyres which have been damaged or which have lost pressure must be substituted immediately with another run flat tyre of the same size and service description (speed code and load index).
• Run Flat tyres have been developed on the basis of the vehicle specifications to which they are fitted. It is not advisable to fit tyres specifically constructed to be equipped with them. Run Flat tyres must be used on the front axle, together with an inflation pressure control system. Tyre Pressure Monitoring System (TPMS). The fitting of tyres and installation of a TPMS must be carried out by a specialised dealer or concessionaire. Pirelli advise the use of extended humph marks, marked GIQ, which reduce the possibility of bead unseating in the case of air pressure loss.

11. WINTER TYRES

• In the case of temperatures below 7° C, the vehicle should be driven at a lower driving speed.
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12. TYRE STORAGE

• Please refer to the section “Storage Instructions”.
• In the case of temperatures below 7° C, for a long period of time, the pressure increases by 0.5 bar and lift the vehicle off the ground to avoid flattening of the tread rubber compound and the possible deformation of the internal structure of the tyres.

13. INNER TUBES

• Inner tubes must not be used inside Pirelli tyres marked as being tubeless under any circumstances.

14. VALVES

• When fitting new tyres to a vehicle it is recommended also to substitute the valves with other new ones of the correct type. During the regular tyre inspections it should also be checked that the valves have the correct valve cores screwed in place. It is important to store these valve cores when necessary because they provide important protection against air loss.
• Bulge of the presence of the valve cap and screw on only by hand as these also provide important protection for the valve core itself.

NB. It is important that all the above checks be performed on the vehicle, always respecting the technical specifications of the vehicle and responding to all relevant and applicable legislation in the country concerned. In some countries, the only legally recognised tyre fitment for a vehicle is that reported in the vehicle technical manual as provided by the vehicle manufacturer.

PIRELLI | TYRE RANGE 2020

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