



# Technical, Product and EV Tyre Training



Paul Turner (Training Manager) & Pete Moulding (Technical Manager)

**BRIDGESTONE**  
Solutions for your journey

# HOUSEKEEPING



- FIRE ALARM & FIRE EXITS
- MEETING POINT
- TOILETS
- SMOKING AREA
- BREAK TIMES / FINISH TIME
- FIRST AIDERS
- MOBILE PHONES

# AGENDA



**1** INTRODUCTION

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**2** TYRE BASICS

---

**3** TYRE TECHNOLOGY

---

**4** OE MARKINGS & CORRECT TYRE SPEC

---

**5** TYRE LAW & REGULATION

---

**6** GENERAL RECOMMENDATIONS & WARRANTY PROCESS

---

**7** TYRE PRESSURE MONITORING SYSTEMS (TPMS)

---

**8** TYRE MECHANICAL ISSUES

---

**9** BRIDGESTONE PRODUCT

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# Introduction round

- » Name
- » Job title and role / work history
- » What do you want to take from today



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## Introduction

Bridgestone produces a wide range of products which cater for the differing demands of customers and vehicles



Used in the correct application and with proper maintenance (correct tyre pressure, wheel alignment, etc...), the Bridgestone tyre will produce a good return in performance.



Cars are becoming more sensitive to tyre choice due to advances in finite element analysis, modelling and dynamic testing. Therefore the correct tyre choice is essential in order to deliver the OEM vehicle DNA.



All Bridgestone Group tyres are fit for purpose in accordance with legislation and durability requirements, both in-house and external, if service description is in line with OEM guidance.

However, if you wish to replicate the original vehicle DNA, you must ensure that the tyres are replaced with the OEM homologated product. Guidance should be sought from the tyre manufacturer with regard to the correct spec if unsure.



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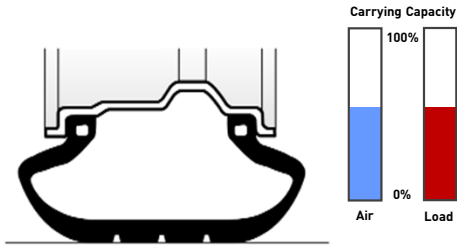
**8** TYRE MECHANICAL ISSUES

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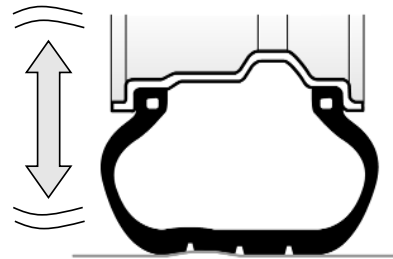
**9** BRIDGESTONE PRODUCT (T6 / T6 AW / A005 EVO)

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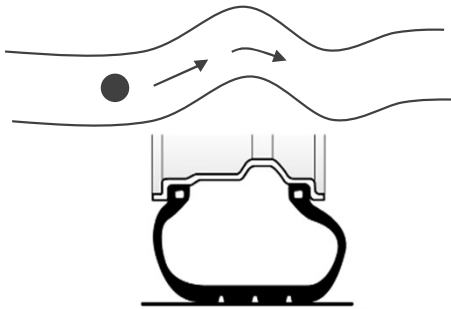
# Main Function of a tyre



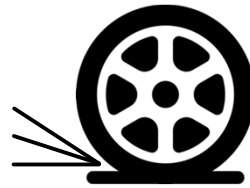
- ✓ To Contain a Volume of Pressurised Air to Support the Vehicle Load



- ✓ To Supplement the Vehicles Suspension (Absorbing Shocks from the Road Surface)



- ✓ To Provide Directional Stability while changing or Maintaining the Direction of Travel



- ✓ To Transmit Traction and Braking forces to the Road Surface

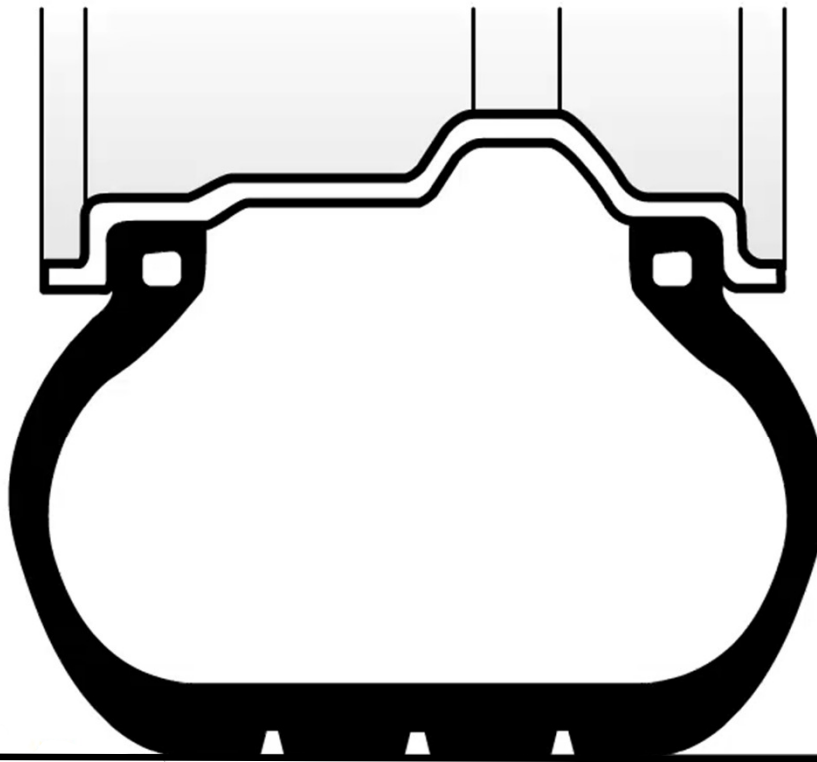




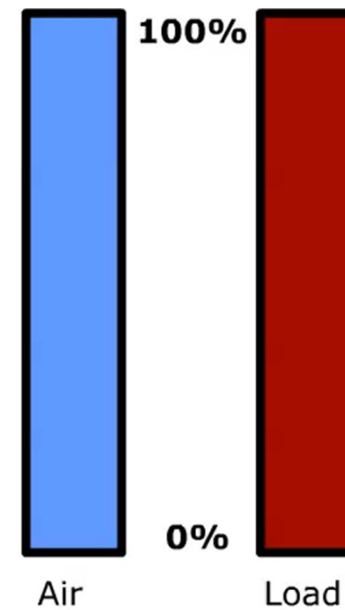
# 1. Contain a Volume of Air

Play

From this you can see it is the **AIR** inside the tyre that supports the weight of the vehicle – air is to a tyre is what fuel is to an engine

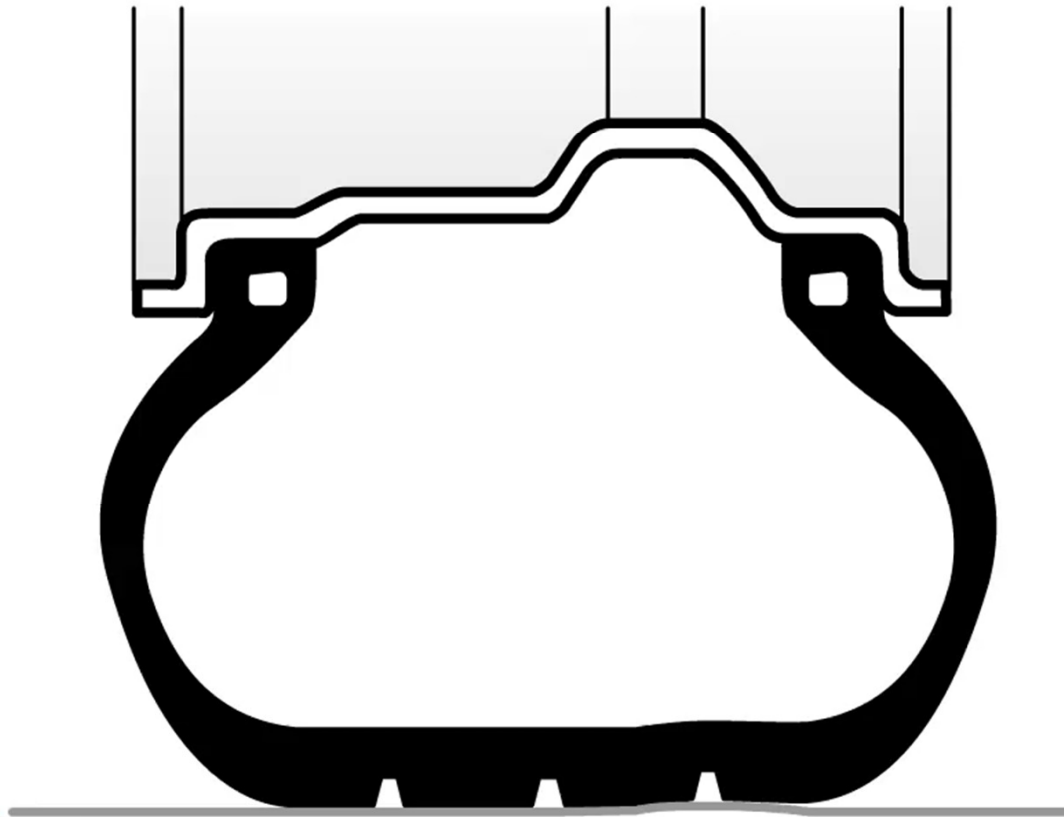


Carrying Capacity



## 2. Supplement Vehicle Suspension

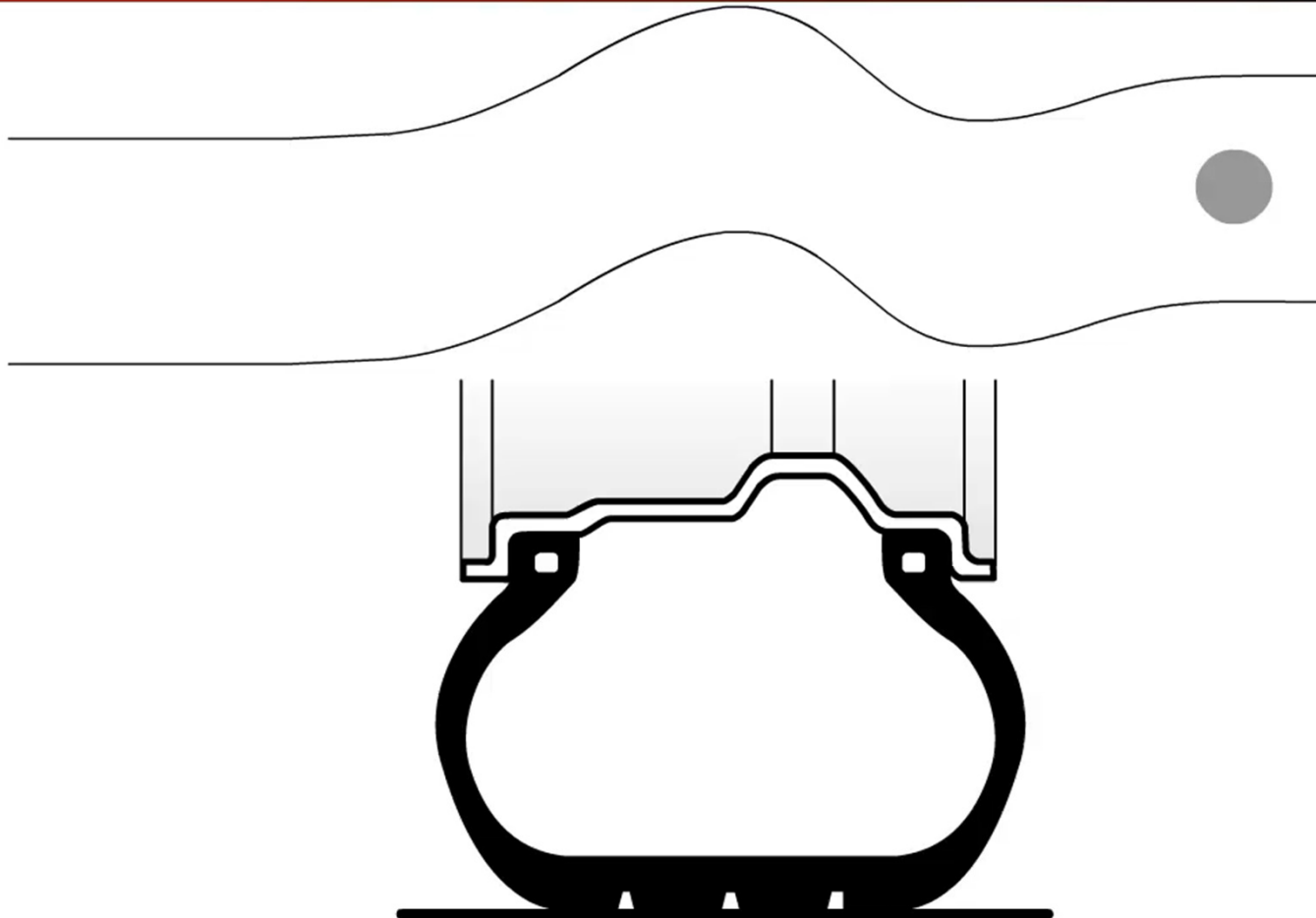
Deformation in the sidewall and tread area of the tyre work in conjunction with the vehicle suspension to absorb shocks from the road surface



## 4. To Provide Directional Stability

Replay

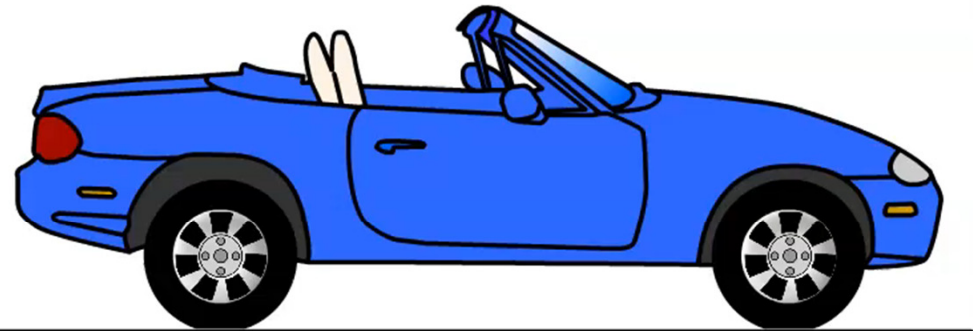
The tyres are the vehicles only point of contact with the road - around one postcard area per tyre. Flex in the sidewall area allows smooth directional changes



### 3. To Transmit Traction and Braking Forces

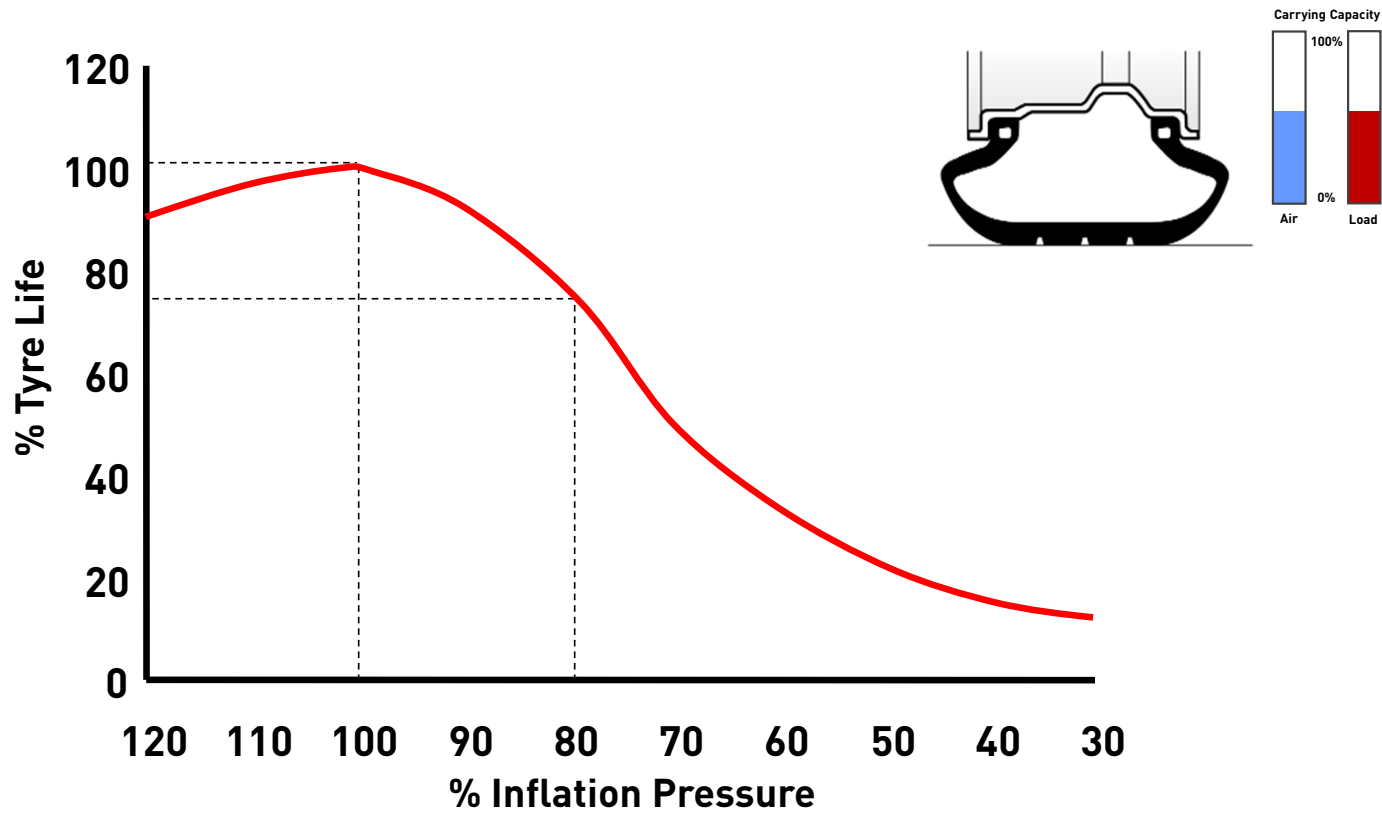
Replay

Regardless of engine power or drive system it is the tyre that provides the traction and braking forces to either drive the vehicle or bring it to a stop



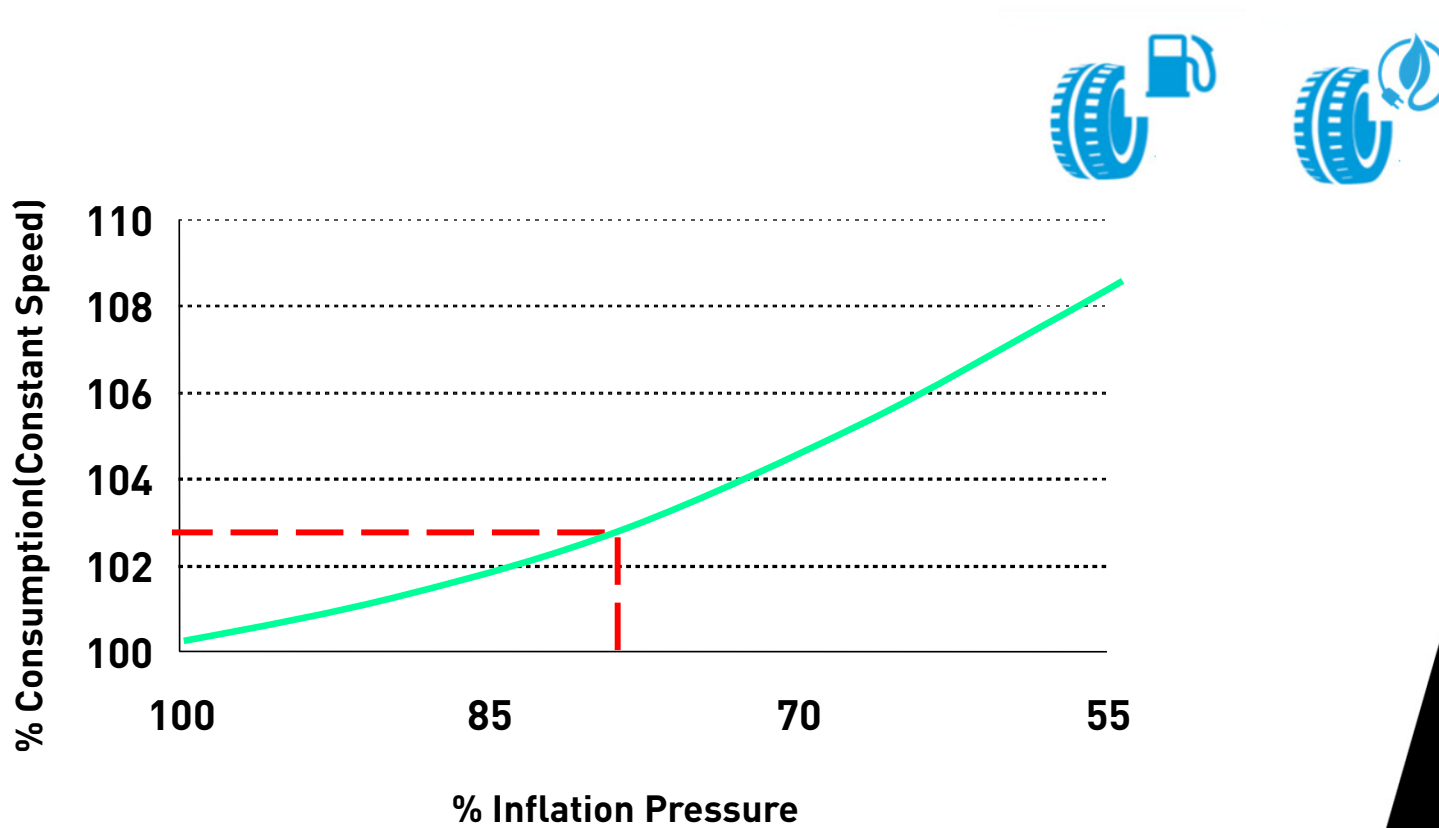
## Inflation Pressure vs Tread Life

20% reduction in IP can impact tyre life negatively by 25%~30%



## Inflation Pressure vs Fuel Consumption / Battery Range

20% reduction in IP can impact fuel consumption negatively by 3%



The image features the Bridgestone logo, which consists of a stylized 'B' with a red and white diagonal stripe on the left side, followed by the word 'BRIDGESTONE' in a bold, italicized, black sans-serif font.

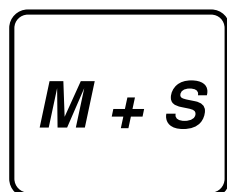
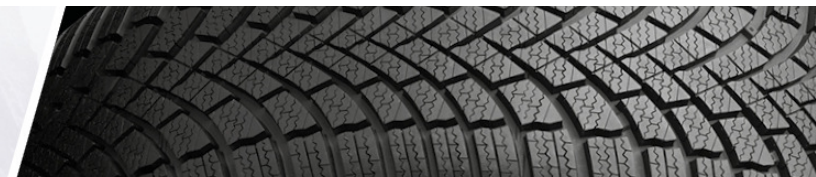
**BRIDGESTONE**

▶ 0:00 / 2:46



## Winter markings

M+S, 3PMSF, Ice Grip



**M+S**  
**Mud and Snow**

Based on manufacturer's own statement, the M+S marking relates to the tyre's tread pattern, tread compound or structure providing better grip and braking performance in mud and fresh or melting snow.

Ref: ECE30 regulation



**3PMSF**  
**Three Peak**  
**Mountain Snowflake**

All our tyres carrying the Alpine marking have passed a snow acceleration test in winter conditions as defined in the UNECE Regulation 117.02 which makes them suitable for winter use on snowy or icy roads.



**NEW 2021:**  
**ICE GRIP**

The new ice grip symbol indicates whether a C1 tyre (passenger car tyre) meets the minimum values for the Ice Grip Index specified in the new ISO standard 19447.



## Size Designation

Tyre labelling as per ECE R 30



265 /

35

R

18

93W

Operation marking: Load Index (LI)  
Speed Symbol (SS)

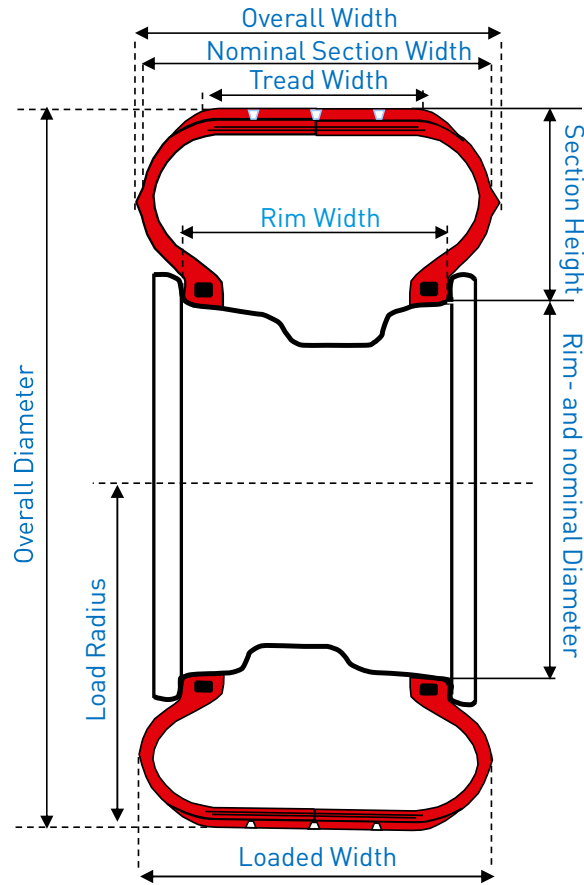
Nominal Rim Diameter in inches

Tyre construction type:  
(R = Radial)

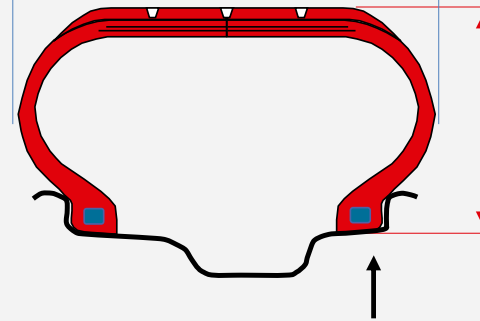
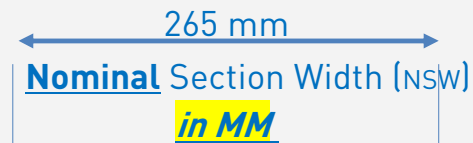
Nominal Aspect Ratio:  
Height / Width – ratio in % (H:W)

Nominal Section Width (mm)

# Car Tyre Dimensions



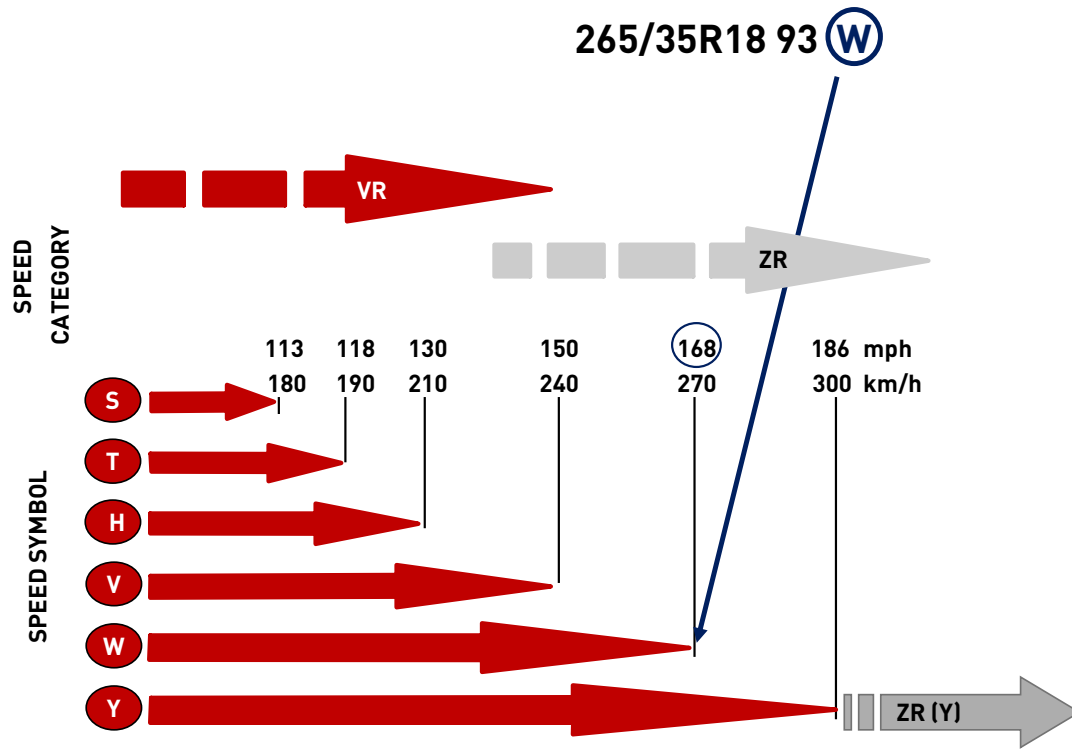
## 265/35 R 18



18 = Rim and Nominal Rim Diameter *in inches*

***ALL tyre dimensions must fall within ETRTO regulations but exact dimensions for the "same size" from different manufacturers can vary***

# Tyre Sidewall – Speed Symbol (SS)



# Tread Pattern Design

## Main Pattern Types



### Non Directional

**Application:**

City Car

**Profile:**

e.g. Ecopia EP150

**Non Directional Recommendation:**

No recommendation!

### Directional

**Application:**

Medium Car / High Perf. (HP) / All Season

**Profile:**

e.g. A005 EVO Weather control

**Directional recommendation:**

Rotational Arrow

### Asymmetrical

**Application:**

HP + Ultra HP

**Profile:**

e.g. Potenza Race

**Asymmetrical recommendation:**

INSIDE / OUTSIDE labelling

# DOT Number

Department of Transportation

All tyres must carry a DOT number in order to comply with North American (plus some other markets) regulation. In practice this means that all Bridgestone tyres are DOT marked.

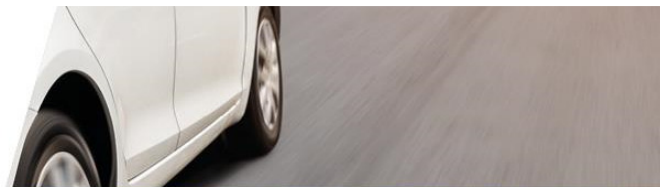
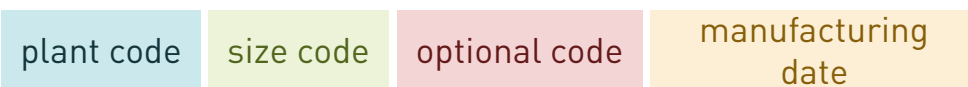
OLD DOT:



NEW DOT:



The optional code is a randomized number generated based on the protocol code within TCE



## Date of Manufacture before 2000



### Date of Manufacture



1990 – 1999:

**3-digit number +** ►  
Week 2-digit/ Year 1-digit

Ex.: 517

From 2000:

**4-digit number**  
Week 2-digit/ Year 2-digit

Ex.: 5107

## Date of Manufacture

### Tyre Age

For passenger car tyres there is no legal age limit. Also tyres age at different rates dependent upon past storage and usage conditions. However, general RECOMMENDATION is as follows:

#### Ultra High Performance (UHP)

– **5 YEARS** from date of manufacture (DOM)

#### High Performance / Normal Performance

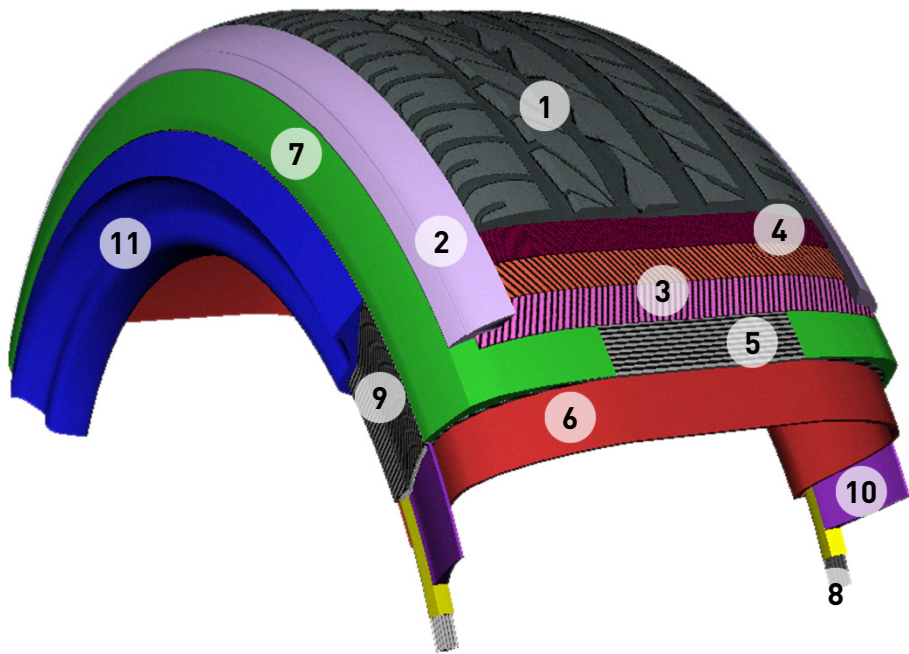
– **10 YEARS** from DOM

From **1st February 2021** Construction & Use Regulations do **not allow tyres aged over 10 years old to be used** on the front steered axles of HGV's, buses, coaches or all single wheels fitted to a minibus.

The change in the law only affects the front steer axle on all vehicles above 3500kgs and the rear axle of minibuses that are of a single wheel configuration.



## Tyre Construction Car



1. Tread
2. Tread Wing
3. Belt Plies
4. Cap Plies
5. Carcass Plies
6. Inner liner
7. Sidewall
8. Bead Core
9. Chafer
10. Bead filler
11. Rim Protector



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ENLITEN Technology



## Tyre for Electric Vehicles



E.V. SALES DATA



E.V. CHALLENGES



RANGE



WEIGHT



ENLITEN



TECHNOLOGIES

# New Vehicle Registrations\*

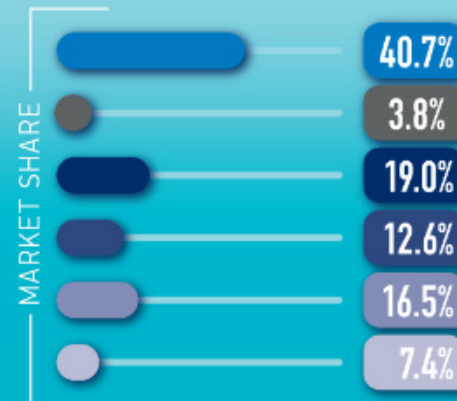
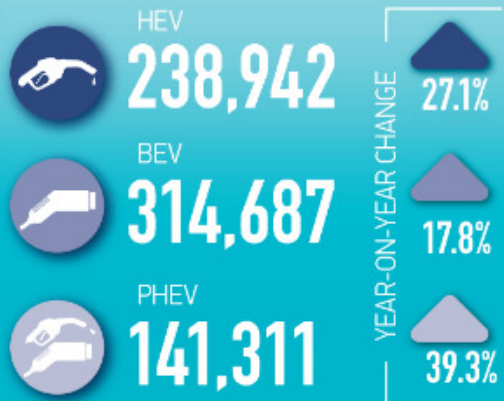
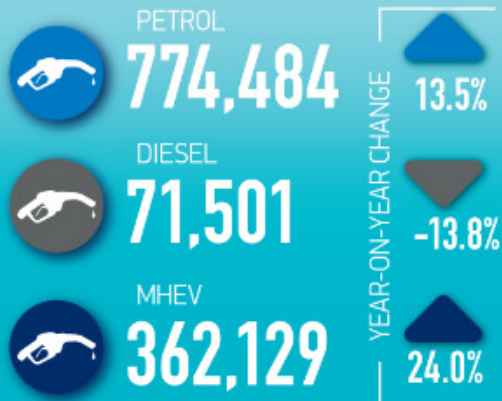
FULL YEAR 2023

## NEW CAR REGISTRATIONS

**TOTAL: 1,903,054**

**17.9%**

YEAR-ON-YEAR CHANGE



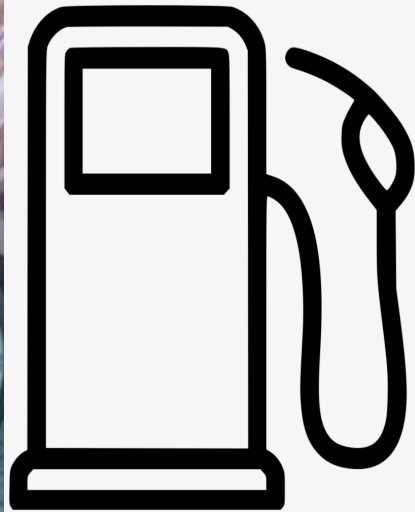
\*SMMT





# Electric Vehicle Tyre Training

## EV Tyre Challenges





### Needs / Characteristics

Range

Silent Engine

High Torque

Weight



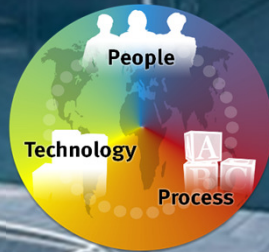
### Challenges to Tyre

Weight & RRC

Low Tyre Noise

Wear Resistance

Increase load Capacity



### Supporting Technology

Light Weight / LRR Technology

Noise Improvement

New Tyre Compounds

High Load Capacity Tyres

## SOLUTION





## Challenge - Range

Range to an EV is what mpg is to a conventional vehicle.

Manufacturers need to extend the range of an EV to make them viable for different usage

Tyre rolling resistance, size, pressure etc has a major effect on a vehicles battery range

Reduction in RRC can significantly extend the maximum range of an EV

In 2023 the average range of an EV was 219 miles

(source:Gridserve)





Rolling resistance (RR) is the energy the vehicle needs to send to the tyres to maintain movement over a surface at a constant speed

As the energy is supplied by the EV battery a tyre with high RR will drain the battery quicker

Budget tyres will often have a higher RR than premium tyres

Higher energy consumption by the tyre will inevitably lead to a reduction in the range the vehicle can cover

The RRC of a tyre is affected by: Weight, Rubber Compound, Aerodynamics, Tread Design and Tyre Pressure





## Weight

The weight of a tyre has a huge effect on its RR

Reduce the weight of the tyre = reduce the RR of the tyre

All Bridgestone tyres designed for fitment to EVs are marked EV ready and are designed with Enliten technology





## ENLITEN from Bridgestone

### What is ENLITEN Technology?

ENLITEN tyre technology is Bridgestone's innovative approach to tyre development.

It is a combination of multiple cutting-edge technologies that enable a lower environmental impact through CO2 emission reduction, resource efficiency and material circularity (use of recycled/renewable material) without any compromise on performance or safety. Additionally, ENLITEN makes our tyre portfolio more adaptable to the latest mobility evolution, making all Bridgestone tyres fully EV-ready. The ENLITEN tyre technology platform can be applied regardless of whether the tyres are intended for use on ICE (internal combustion engine), hybrid, or electric vehicles.

Historically improving one area of a tyre's performance results in a decrease in other areas.

With the introduction of ENLITEN Bridgestone manages to improve several performance criteria at the same time resulting in overall improvements in areas of safety and tyre performance whilst also maintaining our commitment to sustainability by reducing CO2 emissions and using less resources.

#### / SAFETY

Safety will always be our number one priority on which we will not compromise. That is why we develop tyres in a way to ensure the highest levels of safety in dry & wet conditions.

#### / PERFORMANCE

Our tyres offer outstanding performance in the focus area of each product, delivering on the criteria that matter most to the consumer.

#### / SUSTAINABILITY

ENLITEN enables a lower environmental impact through CO2 emissions reduction, resource efficiency and material circularity.



## PIONEERING TYRES FOR AN ELECTRIC FUTURE

Bridgestone's develops premium tyres to meet the specific requirements for Electric Vehicles (as well as Internal Combustion Engine vehicles) and uses innovative tyre technologies to deliver brilliant and long-lasting performance.



### LOW ROLLING RESISTANCE TYRES

Save Electric Vehicle battery life and address range anxiety

- Rolling Resistance reduced by 15% for Bridgestone's replacement (REP) passenger car tyres over the past four years
- This represents an increase in range of 8-10%
- The latest generation of Bridgestone's replacement car tyres achieve a better EU label grade in rolling resistance than predecessors



### HIGHER WEAR TOLERANCE

Offsets the higher weight and torque of Electric Vehicles

- Average wear mileage of Bridgestone's replacement tyres for passenger cars has increased by 15% over the past four years



### EXCELLENT HANDLING AND CONTROL

Addresses issues around Electric Vehicles increased weight and torque

- The latest generation of Bridgestone's replacement tyres in the touring and sport segments boast the highest wet grip label grade for optimal safety



### MINIMISED TYRE NOISE

Ensures driver comfort alongside non-existent Electric Vehicle engine noise

# Innovative Mobility Solutions

CONSTANTLY IMPROVING THROUGH  
EVOLUTION AND NEW TECHNOLOGIES

SECURE

ENERGY EFFICIENT

LIGHT

SILENT

RFT

B-SEAL

VIRTUALLY  
DEVELOPED

ENLITEN



CONNECTED  
AND SMART

B-SILENT

LONG LIFE

ologiC

# RFT - RunFlat Technology Tyres

We offer 3 types of RunFlat Technology Tyres in our product line up

Marked (BMW)



M0 Extended (Mercedes Benz)



All Run-Flat tyres for BMW will also have **RSC (Run-Flat System Components)** marked clearly on the sidewall.



Mercedes Benz Extended Mobility tyres will be marked '**MOE**' - (Mercedes Only Extended Mobility).

Our EXTENDED MOBILITY TYRE (EMT) Tyre...

**DRIVEGUARD™**

Launched as a product brand.



Today as a technology option in our main profiles.

... and the True RunFlat Tyre

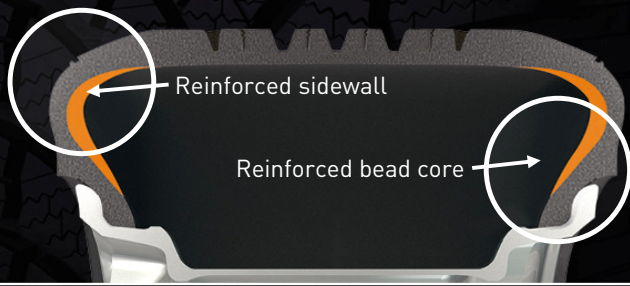
with **RF** in the size description (245/55**RF**18) + **Snail markings**



# RFT - RunFlat Technology Tyres

Which advantages do the technologies provide?

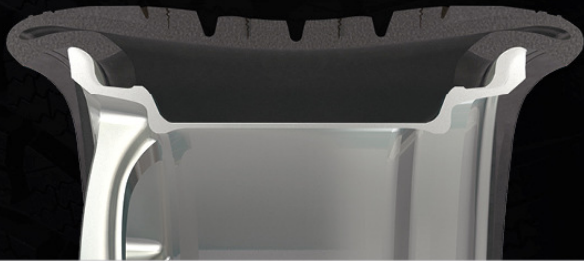
## RUN-FLAT-TYRE



RunFlat Technology provides control over the vehicle even in the event of a sudden drop in tyre pressure and allows the vehicle to continue driving safely.

RunFlat Tyres are individually developed with the vehicle manufacturers and adapted to the vehicle requirements.

## CONVENTIONAL TYRE IN THE EVENT OF A PUNCTURE



Continue to your destination and change or repair your tyre when it is convenient for you. The driving distance after a puncture can vary depending on the vehicle load, outside temperature and driving style.



Increased safety and control in the event of a puncture



No immediate tyre change required in the event of a puncture



Latest generation of RFT offers comparable ride comfort to conventional tyres

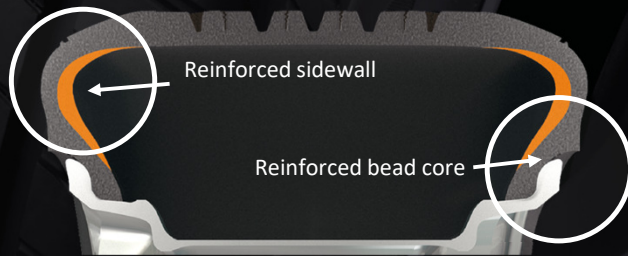


# Extended Mobility Tyre: DriveGuard-Technology

In the event of a puncture, continue driving up to 50 miles at max. 50 mph

## **DRIVEGUARD**

Developed for the replacement market, the revolutionary DriveGuard Run-Flat Technology<sup>1</sup> provides increased safety and control in the event of a puncture, while offering the same comfort as a conventional tyre.



INSTALLED IN OUR CURRENT TYRE SERIES:

**TURANZA T005**

**WEATHER CONTROL A005 EVO**

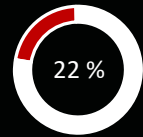
**BLIZZAK LM005**

<sup>1</sup> In accordance with ISO 16992:2018 Extended Mobility Tyre.

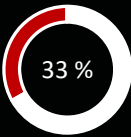
<sup>2</sup> TPMS=Tyre Pressure Monitoring System; Source: IHS (consolidation of the 6 largest European markets: Germany, Spain, UK, Poland, Italy, France).



2014<sup>2</sup>



2022<sup>2</sup>



TPMS is included in every new vehicle produced since 2014

TPMS share in Europe



Reduction of the vehicle weight



Space-saving due to no need for spare tyres



Continuous mobility

No special rim required!

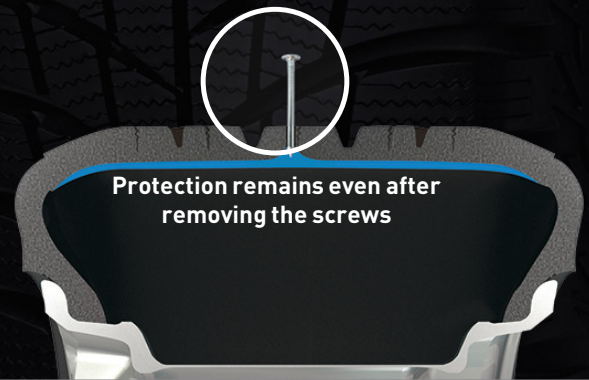


# B-SEAL-Technology

Protection in case of tread damage



Tyre treads equipped with B-SEAL-Technology, damaged by nails, screws, rocks etc, are sealed up to a diameter of 5mm.



Known as Air-Stop-Program at VW.  
1 For more information about it contact the Bridgestone field service.



B-SEAL isolates damages caused by objects using a rubber layer.



Constant tyre performance without comfort loss.



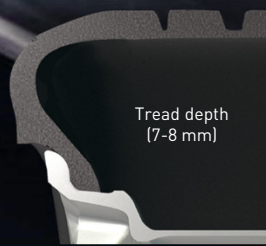
Damages up to a certain size can be repaired by a specialist using set instructions.



# ENLITEN

## 1st Generation - Original Equipment (OE)

CONVENTIONAL  
TYRE



ENLITEN TYRE



ENLITEN lightweight tyre technology provides significantly lower rolling resistance and improved wear performance through reduced weight and a newly developed tread design. OTD <6.0mm: Recommended RTD 1.6-1.8mm. Note: Technology can be found in some of the products listed below.



**TURANZA  
T001 ECO**



**TURANZA  
ECO**



**POTENZA  
S005**



**POTENZA  
SPORT**

# ENLITEN

## 2nd Generation - OE & Replacement



### BEST-IN-CLASS WET PERFORMANCE

Best in wet cornering manoeuvres & outstanding straight-line performance in wet



### SUPERIOR MILEAGE

22%+ improvement vs. T005



### IMPROVED FUEL / ENERGY EFFICIENCY

-4% rolling resistance vs. T005

Looking forward to the future, then next generation ENLITEN technology package & process enhances Bridgestone products towards an even more sustainable future. Enliten for the 21st Century has developed further, enhancing mileage and reducing further CO2 emissions. OTD >6.0mm: Recommended RTD 3.0mm

**BRIDGESTONE  
TURANZA 6**



## • CUTTING-EDGE TECHNOLOGIES

ENLITEN is a combination of cutting-edge technologies:

Providing

- Improved sustainability characteristics
- EV-readiness

Without compromising on

- Safety
- Outstanding tyre performance

### / SAFETY

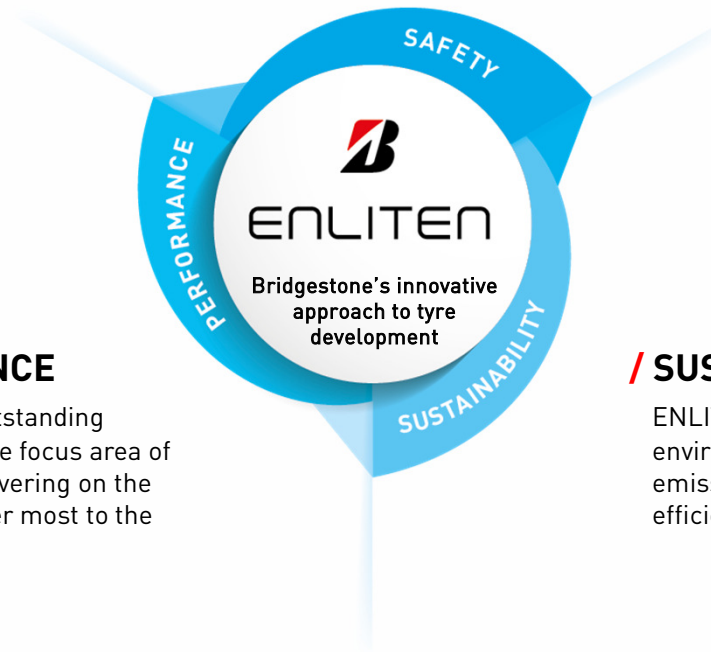
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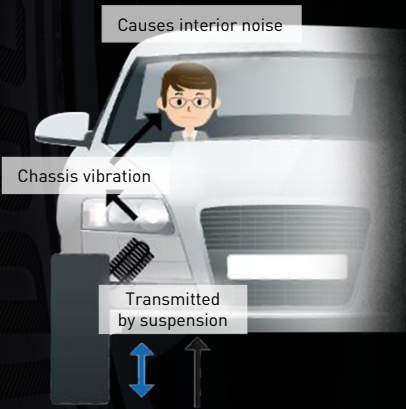
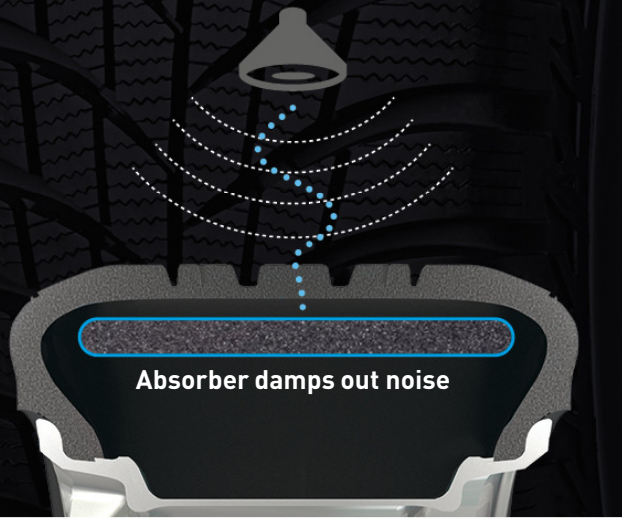


# B-SILENT-Technology

More safety, less noise.



A sponge-like absorber inside the tyre equipped with B-SILENT-Technology reduces all noise produced by the driving process inside the vehicle.



Wheel axle vibration generated by internal air resonance (force: 10-30 N)



Noise reduction inside the vehicle on all road surfaces.



Constant comfort and constant characteristics as an usual tyre.









Currently for selected Audi, Mercedes and Vauxhall models,



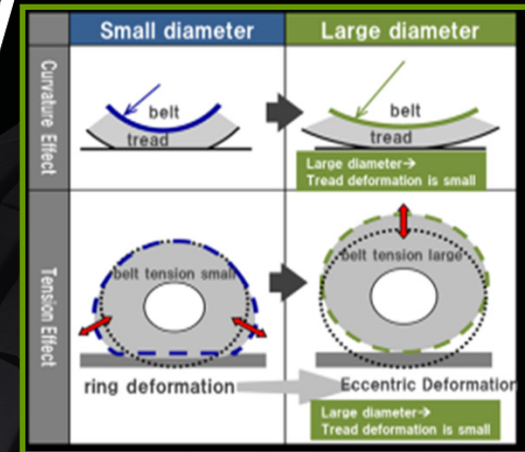
# Ologic Technology

Improving fuel efficiency. Reducing CO2 emissions.

-  Slim tyre
-  High diameter
-  High tyre pressure
-  Innovative tyre design
-  Optimised tread design
-  Improved rubber compound

## ologic

The unique ologic technology is based on reducing the tyre width and increasing the diameter to significantly increase fuel efficiency by improving rolling and aerodynamic drag.



Reduction of fuel consumption through lower rolling resistance and improved aerodynamics



Improved dry and wet performance through innovative tyre construction and tread design



# AGENDA



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**8** TYRE MECHANICAL ISSUES

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**9** BRIDGESTONE PRODUCT (T6 / T6 AW / A005 EVO)

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# OEM Markings

| CAR MANUFACTURER  | MARKING  | ADDITIONAL INFO   |
|---|--|---|
| Specifications / Profile add-on identifier (Mold version)                           | IZ, GZ, 5Z, Z etc.   | Slight differences in rubber compound, construction and/or profile.   |
|    | AMR, AM2, AM8, AM9, A2A, A4A, A5A, <b>A5B</b>  | Rubber compound, construction and tread are adapted to the requirements of Aston Martin.                                |
|    | A0, A01, R01, R02  | Rubber compound, construction and tread are adapted to Audi's comfort-oriented requirements.                            |
|   | <b>A0</b>   |   |
|   | A0E  | Run-Flat Tyre (A0E) with reinforced sidewall.   |
|    |   | Rubber compound, construction and tread are adapted to BMW's sporting requirements.                                     |
|   |   | Run-Flat Tyre (RFT) with reinforced sidewall.   |
|    | G0E  | Hyundai Genesis GV70 gets its own marking "G0E"   |
|    | <b>L</b>   | Rubber compound, construction and tread are adapted to Lamborghini's requirements.                                      |
|    | MGT  | Maserati Levante gets its own "MGT" marking.  |
|  | M0, M01  | Rubber compound, construction and tread are adapted to the comfort-oriented requirements of Mercedes.                   |
|   | M0Extended   | Run-Flat Tyre (MOE) with reinforced sidewall.   |
|   | <b>M0-S, M0E-S</b>   | Tyres with B-Silent technology.   |
|   | M0-V   | Tyres for vans.   |
|  | N-0, N-1, N-3, N-4   | These tyres are specially designed for Porsche. For Porsche, the N designation is in the vehicle registration document. |
|  | RS   | Renault Mégane RS Trophy gets its own marking „RS“.   |
|  | AR   | The rubber compound, construction and tread are adapted to Alfa Romeo's requirements.                                   |
|  |  <b>.A0</b>  | Rubber compound, construction and tread are adapted to Volkswagen's requirements.                                       |

## ADVANTAGES OF MARKED TYRES

### Advantages for the trade

- » Unique selling proposition vis-à-vis competitors
- » Extension of the competence / service level
- » Marketing of the tyre as an original spare part

### Advantages for the end customer

- » Tailor-made tyre - developed together with the vehicle manufacturers
- » Higher performance, e.g. through better grip or cornering stability
- » Maintains DNA of vehicle

## OE Sidewall Markings

Many of our products have sidewall markings that provide additional information about the tyre.



### Porsche 'N'-ratings

Tyres with **N** - Markings have been approved for fitment to Porsche vehicles.

The **N** - number identifies the revision of the design. For a new Porsche fitment, the first approved version of it will be N-0. When the design is changed, (compound for example) it will be marked as an N-1 (N2, N3, N4 etc).

Note - **N**-rated tyres should not be fitted to anything other than a Porsche, unless specified by the vehicle manufacturer. It is **NOT** recommended by Porsche or BS to mix different N- rated tyres on the same vehicle (including axle pairs). However, absolute minimum is across axle.



### 'AM' Markings

All tyres marked **AM** are approved for fitment by Aston Martin. ('A4A' marking was an interim solution for IPC 8403 - hence it does not follow suit).

Note - We would recommend that Aston Martin vehicles are fitted with tyres marked '**AM**' or equivalent.

## OE Sidewall Markings

Many of our products have sidewall markings that provide additional information about the tyre.

### BMW 'Star' Marking



Tyres with 'Star' marking have been approved for fitment to BMW vehicles.

Note- Tyres with this marking should only be used on BMW vehicles.

All Run-Flat tyres for BMW will have **RSC** (Run-Flat System Components) marked clearly on the sidewall.

### Mercedes MO Marking



Tyres with the marking **MO** (Mercedes Original) have been approved for fitment to Mercedes Benz vehicles.

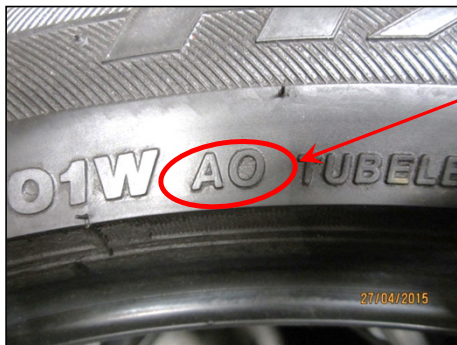
Mercedes Benz Extended Mobility tyres will be marked '**MO Extended**' - (Mercedes Only **Extended** Mobility)

**MO Extended - S** - (Mercedes Only **Extended** Mobility) B-Silent

Note- Tyres with MO Extended marking should only be used on Mercedes Benz vehicles.

## OE Sidewall Markings

Many of our products have sidewall markings that provide additional information about the tyre.



### AO Markings

Tyres marked 'AO' (Audi Original) have been homologated for use on specific Audi vehicles. For optimum performance, we would recommend such vehicles are fitted with the appropriate AO marked tyre.

Note: Tyres with the marking AO have been approved for fitment to Audi vehicles.

### Additional Audi Markings

R02 Audi RS4



AOE AUDI – A3 / A3 PHEV  
(Bridgestone Exclusive)





# Tyre Identification

225/45R17 S001

## Tread Colour Lines

White / Yellow / White

Blue / Yellow / Brown / White

## Construction Codes

DOT EJA TRT**DCK** 0219

DOT EJA TRT**CFE** 0219

## Pattern Codes

E0S001BZ

E0S001BZ



## So why is this important?



- Its about delivering the right tyre to the customer.
- Its about delivering full customer satisfaction.
- Its about maintaining the vehicles DNA performance.
- Its about maintaining the vehicles optimum performance.
- **Its about maximising the return of business opportunity!**

**Happy customers come back for more!**

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## UK Tyre Law

There are Two important Legal Statutes that Relate to Tyres

### 1) The Road Vehicles (Construction and Use) Regulations 1986.

These regulations do not cover only tyre legal requirements but any area related to road usage and traffic.

They include areas related to dimensions and manoeuvrability, brakes, wheels, springs, tracks, steering, vision, instruments, fuel, minibuses, power to weight ratio, protective systems, control of emissions, plates, markings, testing and inspection and conditions related to use.

### 2) Motor Vehicle Tyres (Safety) Regulations 1994

Which cover the requirements relating to the supply of tyres and areas such as E markings, Part Worn tyres and Retreads.



# UK Tyre Law

## Summary of C & U Regulations

### 3) Tyre Cuts

A cut in excess of 25mm or 10% of the section width of the tyre, whichever is the greater, measured in any direction on the outside of the tyre and deep enough to reach the ply or cord would deem the tyre illegal.



### 4) Ply or Cord Exposure

If there is any cut in the tyre no matter how small which exposes cords, then the tyre is illegal.



### 5) Lumps, Tears and Bulges

Regulation 27 section (d) states – “ the tyre has any lump, bulge or tear caused by separation or partial failure of its structure “. It is good practice wherever possible when assessing damage that the tyre is removed from the rim and systematically inspected both internally and externally.



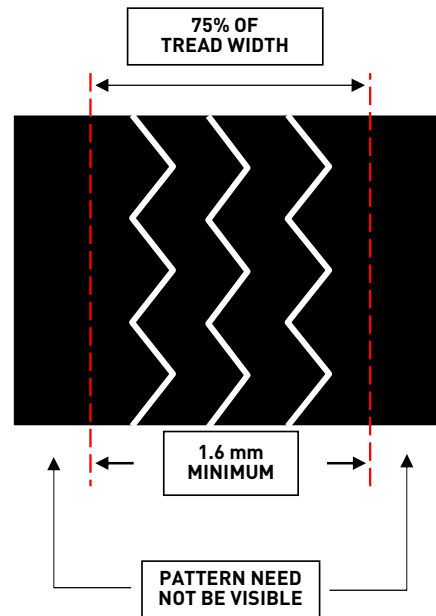
# UK Tyre Law

## Summary of C & U Regulations

### 6) Tread Depth

The legal minimum tread depth for cars and light trailers (including caravans) up to 3500 kgs gross vehicle weight and/or 8 seated passenger vehicles including driver is: -

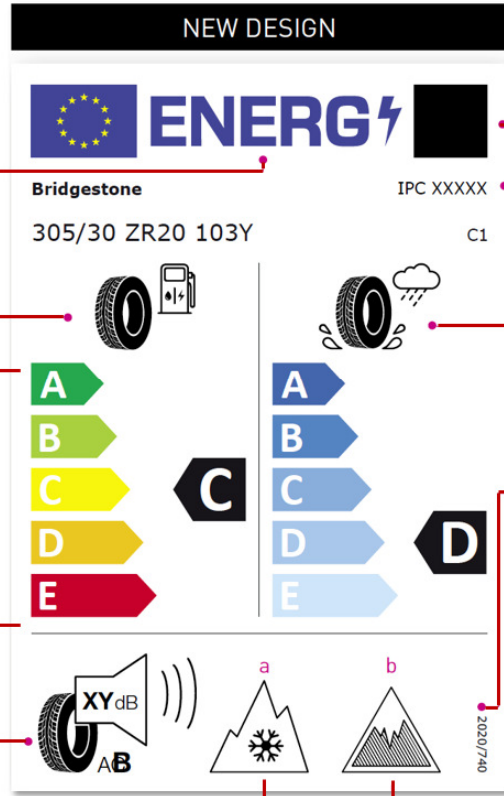
A minimum of 1.6mm in a continuous band throughout the central three quarters of the tread width, throughout the whole of the circumference (see illustration).



// EU TYRE LABEL UPDATE

# EU Tyre Label - May 2021

What is New?



Energy efficiency logo

New fuel efficiency symbol suggests that it is applicable to both internal combustion vehicles and electric ones.

New scale rolling resistance and wet grip classes F and G are no longer allowed. Only 5 classes (A to E).

External noise A, B and C classes are now reported for an easier information about level of Noise performance.

QR code provides additional information from a European Commission database.

Product ID code

Wet grip

New regulation number

Info performance on snow and ice:

a) 3 Peak Mountain with Snow Flake symbol

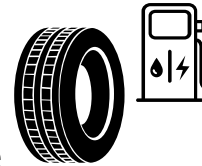
b) Ice stalagmite symbol for Nordic winter tyres



# Tyre Label

What do the label grades mean?

Low rolling resistance tyres that are properly inflated can have as much as a **10% savings impact**. This provides financial savings in terms of running costs or, for electric vehicles for example, enables the driver to cover a further distance before refuelling or recharging. The rolling resistance class ranges from A (most efficient) to E (least efficient). The higher the energy class, the lower the rolling resistance.



The wet grip class is a critical safety feature, relating to how a tyre can brake on wet roads. Tyres are rated A (the shortest braking distance) to E (the longest braking distance).

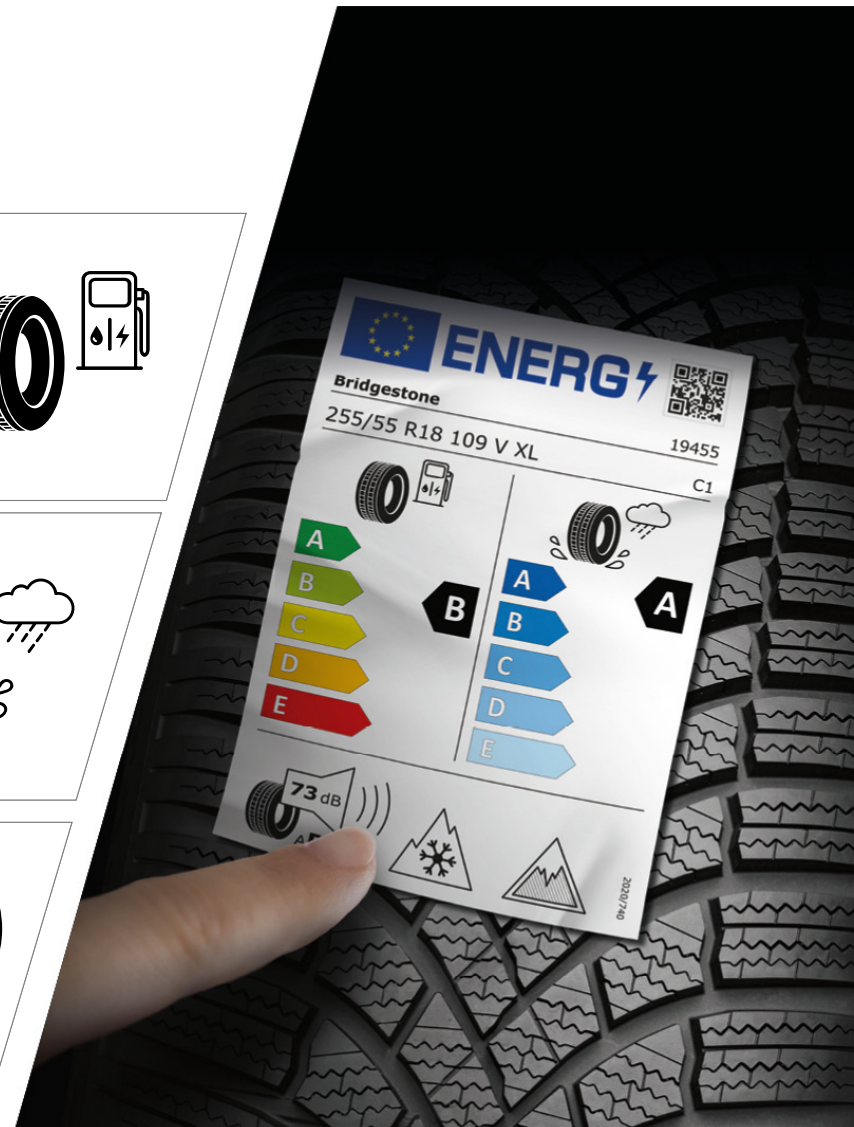


The difference in each category can mean an extra **3-6 metres** on the stopping distance.

The external noise relates to the noise produced by the tyre when a car passes by and is measured in dB (decibels).



Noise classes range from A (less noise outside the vehicle) to C (more noise).



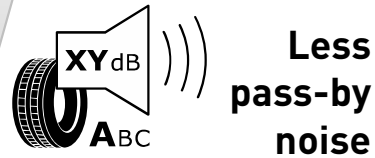


# NEW EU Tyre Label - May 2021

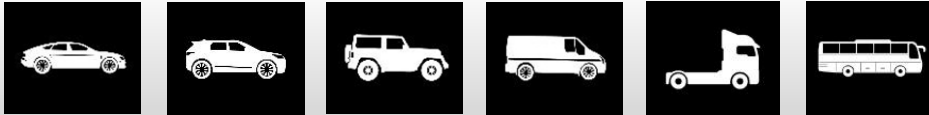
What is New?

## Why

- Help consumers make informed decisions
- Boost innovation and further improve product quality



## Which tyres



## When

All tyres produced as of



2021

Tyres produced before

- Can carry new or the old label
- Remain compliant, no re-labelling
- Are upload in EPREL database



Source: <https://www.europarl.europa.eu/news/en/headlines/society/20200423ST077731/tyre-pollution-lowering-car-emissions-with-new-eu-tyre-labels>

# Tyre Label

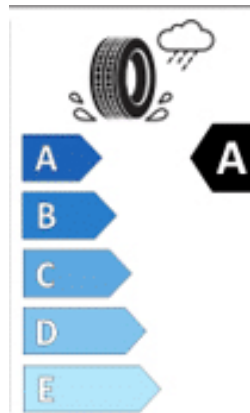
How are these grades calculated?

## For Wet Grip

Graded by:

1. The distance the tyre takes to decelerate from 50mph to 12mph on a wet surface (1mm water)
2. The friction created by a tyre and road surface whilst travelling at 40mph (skid trailer test)

Results are combined to result in the Wet Grip Index (WGI) rating

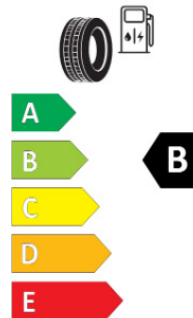
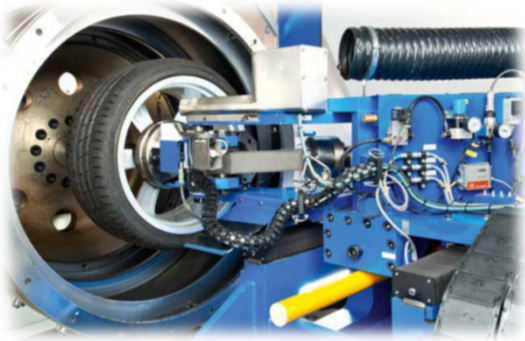


# Tyre Label

How are these grades calculated?

## For RRC

Calculated by rotating a 2m diameter drum with a known (unloaded) torque requirement to set it in motion. The tyre being tested is mounted on a wheel and applied to the drum with a defined load and pressure. The torque reading is recalculated. The difference between the 2 readings is used to calculate the rolling resistance rating.



# Tyre Label

How are these grades calculated?

## For Noise

The test uses a microphone set up at a defined distance from the centre of a track (7.5m from the centre of the track at sit at 1.2m above the ground). The vehicle is driven at 50mph and when passing the microphone the engine is turned off and the tyre noise measured. Can also be referred to a “pass by noise” test.

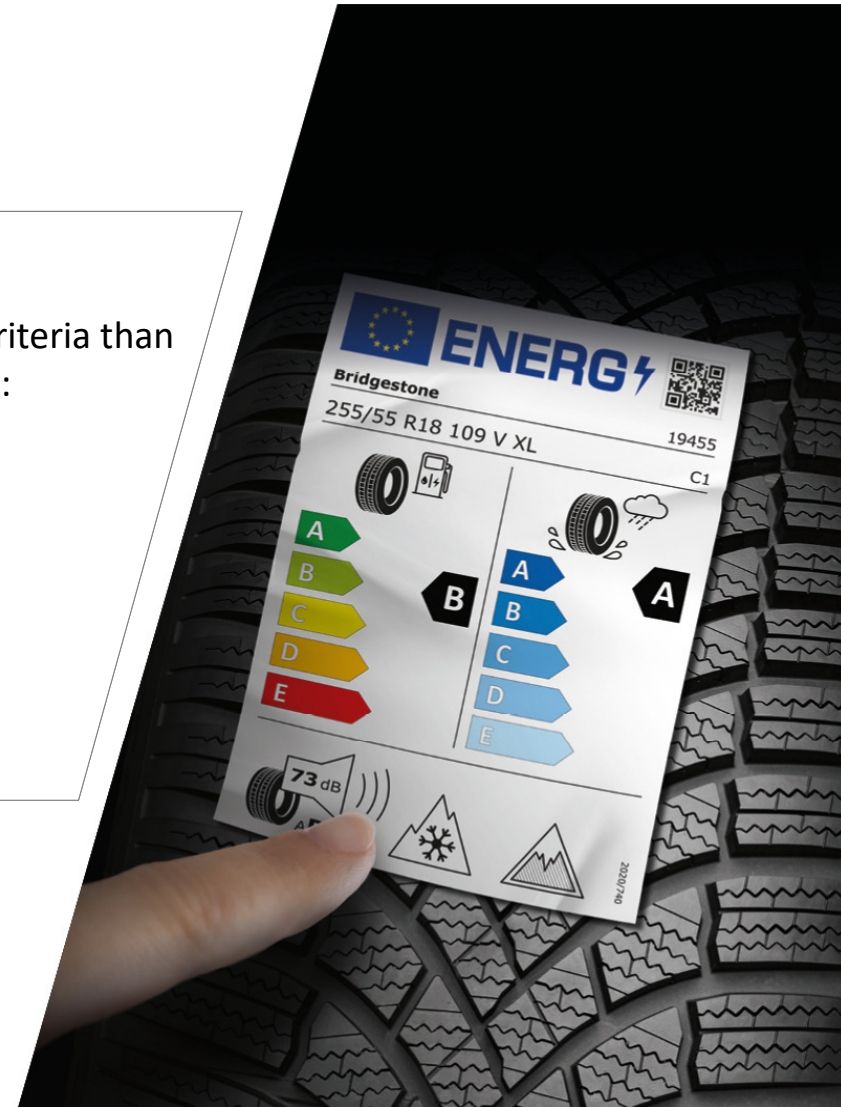


## Testing Criteria

### For magazine testing

For tyre magazine / media tests the tyre will undergo more testing criteria than for label grading. For instance, magazine tests will also rate tyres for:

- Dry handling
- Wet handling
- Comfort
- Dry braking
- Wear
- Subjective handling



## Testing Criteria

### Tyre manufacturer testing

Before release to the market a premium tyre manufacturer will subject a tyre to around 50 tests including:

- Wet grip
- Wet braking
- Wet hydroplaning
- Corner hydroplaning
- Dry grip
- Dry braking
- Dry handling
- Comfort
- Noise (external)
- Noise (in vehicle)
- Rolling resistance
- High speed stability



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# General Recommendations



## Tyre Tread Depths:

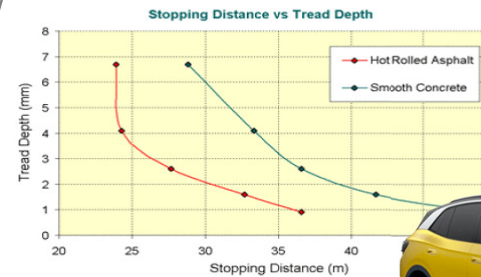
- » The legal limit for a passenger car tyre/small van tyre is 1.6mm.
- » We recommend that customers replace tyres @ 3mm as wet performance can decrease rapidly below 3mm

## Axle Pairs/Positioning:

When a customer is replacing tyres for any type of vehicle, we would always recommend to replace in axle pairs, and that they are fitted to the rear axle.

## OE Replacement Products:

For UHP/HP cars we always recommend the OE approved product, as these products will deliver the 'DNA' performance the OEM targets. This is extremely important for tyres approved for EV's, as the tyre rolling resistance is critical for battery life and vehicle range.





# General Recommendations



## Inflation Pressures:

We always recommend consulting the vehicle manufacturer's handbook for tyre pressures. (can also found on door pillar/petrol cap)



## Tyre Age:

For passenger car tyres there is no legal age limit. Also tyres age at different rates dependent upon past storage and usage conditions.



## Tyre Repair:

All tyre repairs should be completed to BSAU/159G Standard



However, general **RECOMMENDATION** is as follows:

- Ultra High Performance (UHP)  
- 5 YEARS from date of manufacture (DOM)
- High Performance / Normal Performance  
- 10 YEARS from DOM

# General Recommendations



## EV Vehicles & Tyres

- » We always recommend fitting the Original Equipment (OE) specification, as both RRC & Wear Life and Wet Braking are tuned to that specific vehicle, so that it delivers the correct DNA performance.
- » In addition many tyres fitted to EV's have ultra low Rolling Resistance (RRC) that delivers beyond that of an 'A-Grade' RRC label grade but also maintains excellent wet braking for safety.
- » Finally, fitting a lower grade RRC tyre (e.g. D-Grade) will impact negatively on battery range and life. In other words the end user will have to recharge more frequently.



## 4x4 Vehicles

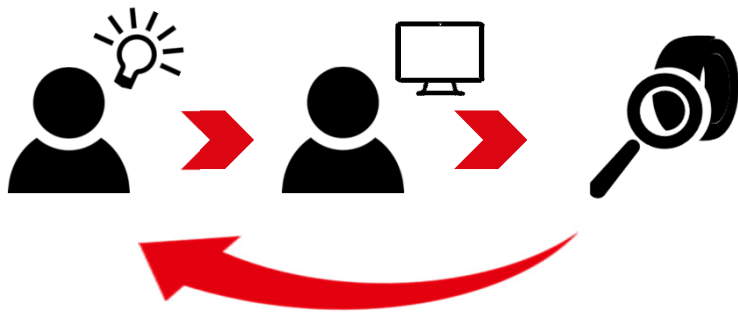
- » The rolling circumference (RC) of a tyre changes as the tyre wears. A new tyre will have a larger RC than a worn tyre, meaning it rolls further with every rotation. On 4x4 vehicles, if the wheels are rotating at incorrect speeds relative to each other, the component which apportion power between the axles can become damaged (known as Transfer wind-up).
- » Tyres from different manufacturers may also have different RC even if the same size description, so you should always fit four matching tyres of similar tread depth to avoid problems.



## Tyre Warranty Process



- » Complaints are handled through the chain of purchase – business to business relationship. Communication with the end user is maintained throughout.
- » We provide a free-of-charge collection from the dealers, and inspection at our centralised Technical Inspection Bay (located at the Coventry warehouse in the UK).
- » The majority of complaints, with the exceptions of AG/OR/Crane, are centralised through the Technical Inspection Bay. General warranty is 5 years from tyre date of manufacture.
- » KPI of 14 days from notification of complaint product to issue of report.
- » Complaint products must be accompanied by detailed Standard Application Form – SAF – giving information such as vehicle, operation, mileage etc.



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## What is TPMS?



**Tyre Pressure Monitoring System:** A method to monitor the inflation state of a tyre.

### 2 methods in use on passenger cars:

**Direct measurement** of the pressure inside the tyre using a pressure sensor and radio transmitter/receiver system to bring data into the vehicle.

**Indirect measurement** uses the sensors of ABS to measure wheel speed and looks for differences between the 4 wheels to recognise if one tyre is deflating.

The indirect system is often called DDS – Deflation Detection System, rather than TPMS as it does not actually know the pressure in the tyre itself.

EU – TPMS mandatory on all new passenger vehicle models as of Oct. 2012 and all new production as of Oct. 2014. – EU Reg.661/2009.



## TPMS + Pressure Maintenance

**TPMS and a pressure maintenance program will benefit the user in the following areas:-**

- » Extended tyre life through correct pressure
- » Reduced irregular wear – leading to premature removal
- » Optimal vehicle fuel consumption
- » Optimal vehicle handling
- » Reduction in vehicle breakdowns due to tyre under- or over-inflation

**Important to remember is that TPMS on it's own will not create benefits. Only as part of a pressure maintenance service will there be a return on the cost of fitting.**



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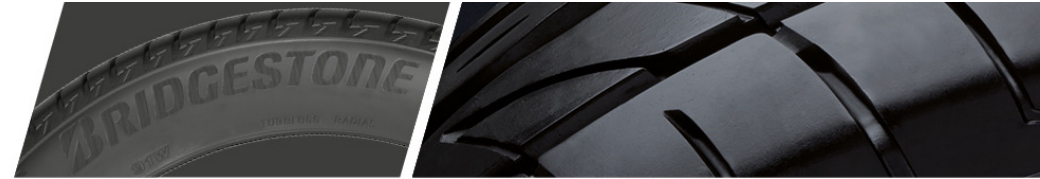
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9 BRIDGESTONE PRODUCT (T6 / T6 AW / A005 EVO)

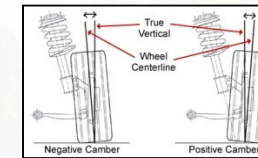
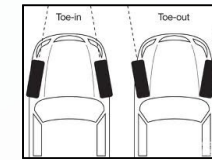
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# Irregular wear - Shoulder wear

One Side



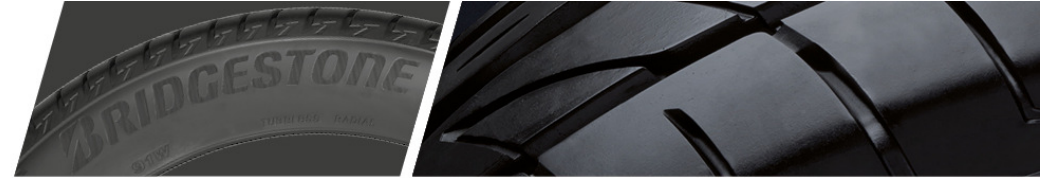
|                                   |  |
|-----------------------------------|--|
| <b>Appearance</b>                 | Excessive wear on one tread shoulder   |
| <b>Possible Causes</b>            | a) Excessive toe.<br>b) Excessive camber.  |
| <b>Recommendation to customer</b> | 1) Identify and correct mechanical problem.<br>2) If wear is not too severe turn tire on rim to extend life. |





# Irregular wear - Shoulder wear

Both Sides



|                                   |  |
|-----------------------------------|--|
| <b>Appearance</b>                 | Excessive wear on both tread shoulder                            |
| <b>Possible Causes</b>            | a) Under - inflation.<br>b) Improper matching of tyres and rims. |
| <b>Recommendation to customer</b> | 1) Maintain proper inflation pressure.                           |



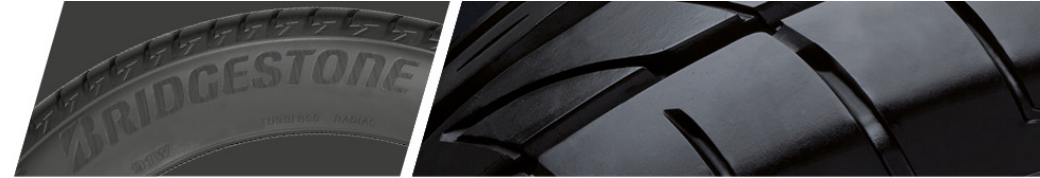
## Irregular wear – Centre Wear



|                                   |                                       |
|-----------------------------------|---------------------------------------|
| <b>Appearance</b>                 | Excessive wear in the centre.         |
| <b>Possible Causes</b>            | a) Over - inflation                   |
| <b>Recommendation to customer</b> | 1) Maintain proper inflation pressure |



## Irregular wear – Feather edge wear



### Appearance

Feathered tread blocks are shaped like a series of ramps in a wear pattern that goes sideways across the tread.

### Possible Causes

- a) Feathering is an indication the vehicles toe setting has moved away from its optimum position.
- b) Worn or damaged suspension bushes could be causing the vehicles alignment to shift from optimum position

### Recommendation to customer

- 1) Check vehicle toe settings are within tolerance of the recommended settings.
- 2) Check suspension for free play.
- 3) If the tyre damage is not too severe, repositioning the tyre and continued operation may alleviate some of the damage.



## Sidewall - Bulge due to impact



### Appearance

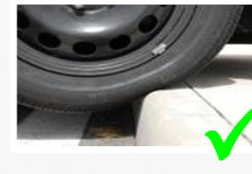
Irregular bulge to sidewall.

### Possible Causes

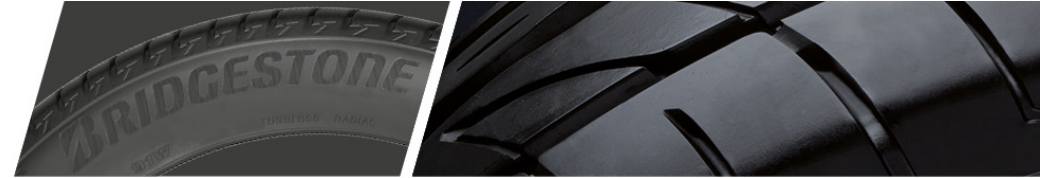
- Impact to sidewall fracturing body ply cords.
- Air percolation to sidewall due to cut bead.
- Improper repair.

### Recommendation to customer

- Determine the cause of the bulge.
- Dismount tyre for safety.
- If in doubt consult a tyre expert.



## Casing – Run Flat Damage



### Appearance

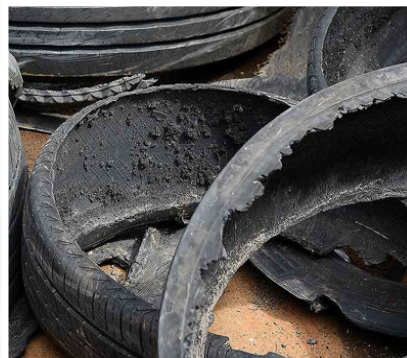
Discolouration, blistering and or separation of the inner liner.  
Can lead to total destruction of the casing (CBU).

### Possible Causes

- Continued running after total loss of inflation pressure.
- Acute under inflation.
- Continued operation after puncture.

### Recommendation to customer

- Check pressure on regular basis (weekly).
- Stop vehicle immediately when you feel a change in steering characteristics.



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BRIDGESTONE

TRENDS

**PRODUCTS & OE**

MARKETING

COLLABORATION

**BRIDGESTONE**  
*Solutions for your journey*

# Selected Key OEM Partner

for ICE vehicles, BEVs and PHEVs


## For leading OEMs...




## ...and innovative EV newcomers




## Some 2022 key figures

**337** fitments on ICE vehicles 

**67** fitments on BEVs 

Discover all Bridgestone fitments on BEVs

**122** fitments on PHEVs 

Discover all Bridgestone fitments on PHEVs



Product & OE

**BRIDGESTONE**



# Award Winning Product Offer



**PROVEN PERFORMANCE**

## TEST WINNER 2022

**TURANZA TO05**



“Its key to success is **top scores in all safety-related criteria - whether it is raining or the road is dry.**”

## TEST WINNER 2022

**POTENZA RACE**



## TEST WINNER 2022

**POTENZA SPORT**



“After completing a **clean sweep of the key braking and handling tests**, the Potenza Sport has put Bridgestone at the top of this sector with a bang (...)”

OUR NEW SEMI-SLICK TYRE CLAIMED THE OUTRIGHT WIN

“Almost perfect handling characteristics, performance that is close to the level of a slick tyre, precise steering, the ability to generate high levels of lateral forces, wide limits and endurance.”

AND ALSO RECOGNISED BY



“Precise and uncompromisingly sporty”

“New **top class sports tyre.**”

**TEST WINNER 2021**

<sup>1</sup>Rank 1 of 10 • <sup>2</sup>Rank 2 of 16 • <sup>3</sup>Rank 3 of 18 • <sup>4</sup>Rank 2 of 10 • <sup>5</sup>Rank 1 of 4 • <sup>6</sup>Rank 1 of 7 • <sup>7</sup>Rank 1 of 3 • <sup>8</sup>Rank 1 of 9



Product & OE

**BRIDGESTONE**

# Our Premium Tyre Range

Bridgestone Summer and All Season<sup>1</sup>



Inch

Replacement Sizes (≥ 17")

Warranty Sizes (≥ 17")

## TOURING



### TURANZA 6



17 - 22"<sup>1</sup>  
110 (110)  
2 (2)

## PERFORMANCE



### POTENZA RACE



17 - 20"  
14 (14)  
3 (3)

### POTENZA SPORT



17 - 22"  
96 (96)  
32 (32)

### DURAVIS VAN



15 - 17"  
26 (3)

## TOURING



### WEATHER CONTROL A005 EVO



15 - 21"  
86 (61)  
2 (1)

## 4X4



### DUELER A/T001



15 - 18"  
28 (7)  
2 (2)

### DURAVIS ALL SEASON



15 - 17"  
24 (3)  
4



Inch

Replacement Sizes (≥ 17")

Warranty Sizes (≥ 17")



Product & OE

BRIDGESTONE



# ***BRIDGESTONE TURANZA 6***

**NEW**



**BRIDGESTONE**  
*Solutions for your journey*

***BRIDGESTONE***

## • **TURANZA 6** | PRODUCT BENEFITS



### **BEST-IN-CLASS WET PERFORMANCE**

Best in wet cornering manoeuvres & outstanding straight-line performance in wet <sup>1)</sup>



### **SUPERIOR MILEAGE**

22%+ improvement vs. test winning predecessor <sup>2)</sup>



### **IMPROVED FUEL / ENERGY EFFICIENCY**









-4% rolling resistance vs. predecessor <sup>2)</sup>

### **ELECTRIC VEHICLE READY: TYRE DESIGNED TO MEET THE SPECIFIC REQUIREMENTS OF ELECTRIC VEHICLES**

<sup>1)</sup> Tests carried out by TÜV SÜD on the request of Bridgestone in June 2022 at the facilities ATP Papenburg (Germany) & Bridgestone EUPG (Italy) for wet tests with BMW 520i & BMW 530d, on tyre size 245/45 R18 100Y XL. Turanza 6 compared to the performances of main competitors in the same segment: CONTINENTAL Premium Contact 6, MICHELIN Primacy 4+, PIRELLI Cinturato P7 (P7C2) Report No. [713263409]. AQUAPLANING LATERAL, rating: BRIDGESTONE Turanza 6 (100%) CONTINENTAL Premium Contact 6 (92%), MICHELIN Primacy 4+ (90.2%), PIRELLI Cinturato P7 (P7C2) (96.9%). AQUAPLANING STRAIGHT-LINE, rating: CONTINENTAL Premium Contact 6 (100.2%), BRIDGESTONE Turanza 6 (100%), PIRELLI Cinturato P7 (P7C2) (98.9%), MICHELIN Primacy 4+ (98.5%), LATERAL WET GRIP, rating: BRIDGESTONE TURANZA 6 (100%) CONTINENTAL Premium Contact 6 (97%), MICHELIN Primacy 4+ (95.1%), PIRELLI Cinturato P7 (P7C2) (93.3%). WET BRAKING (Ø CALC. Stopping Distance [m] 80-20 km/h) rating: CONTINENTAL Premium Contact 6 (33), BRIDGESTONE Turanza 6 (33.7), PIRELLI Cinturato P7 (P7C2) (34.4), MICHELIN Primacy 4+ (36).

<sup>2)</sup> Based on internal benchmark Turanza 6 vs Turanza T005 [ref. size 205/55 R16]

• Turanza 6 – ENLITEN Technologies delivering Turanza 6 value proposition

|  <b>TOOLBOX</b> |  |  <b>PERFORMANCE</b>   |  |  |
|--|--|--|--|--|
|  |  |  <b>WET PERFORMANCE</b> |  <b>MILEAGE</b> |  <b>RRC</b> |
| <b>COMPOUND</b>  | Techsyn technology + new resins  | Filler optimised dispersion  | Polymer-filler optimised interaction   |  |
| <b>FABRIC</b>  | Low gauge tread plies / body ply   |  |  | Weight and hysteresis reduction  |
| <b>CAVITY DESIGN</b>   | Cavity shape and rib distribution  | Pressure distribution optimised for drainage improvement   | Shear stress optimisation and slippages reduction  |  |
|  | Aerodynamic Rim Guard  |  |  | Aerodrag force reduction   |
| <b>PATTERN DESIGN</b>  | Divergent shoulder lug  | Smoother water evacuation  |  |  |
|  | 3D Washboard sipe     | Micro-drainage channels for water evacuation   | Interlocking mechanism for increasing local pattern stiffness                                      |  |
|  | Double sequence       |  | Stiffness balance centre vs shoulder and blocks  | slippage reduction   |





# **TURANZA 6**

THIRD-PARTY TEST RESULTS

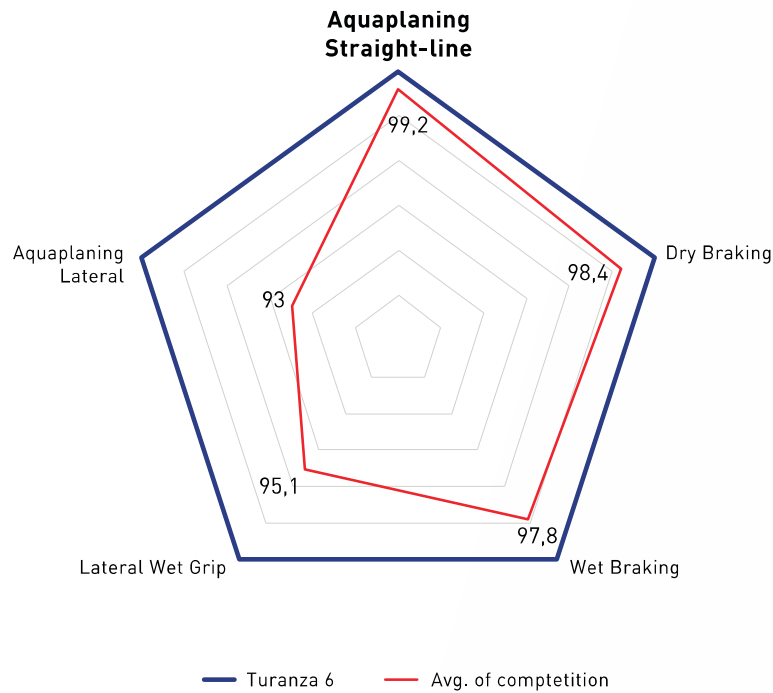
**NEW**



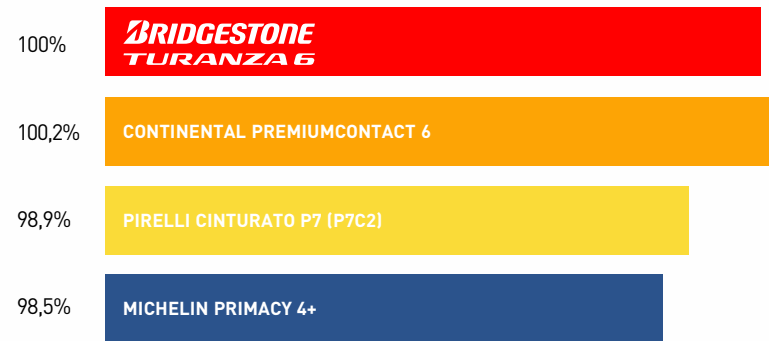
**BRIDGESTONE**  
Solutions for your journey



# AQUAPLANING STRAIGHT-LINE



## AQUAPLANING STRAIGHT-LINE PERFORMANCE [%] "The higher the better"



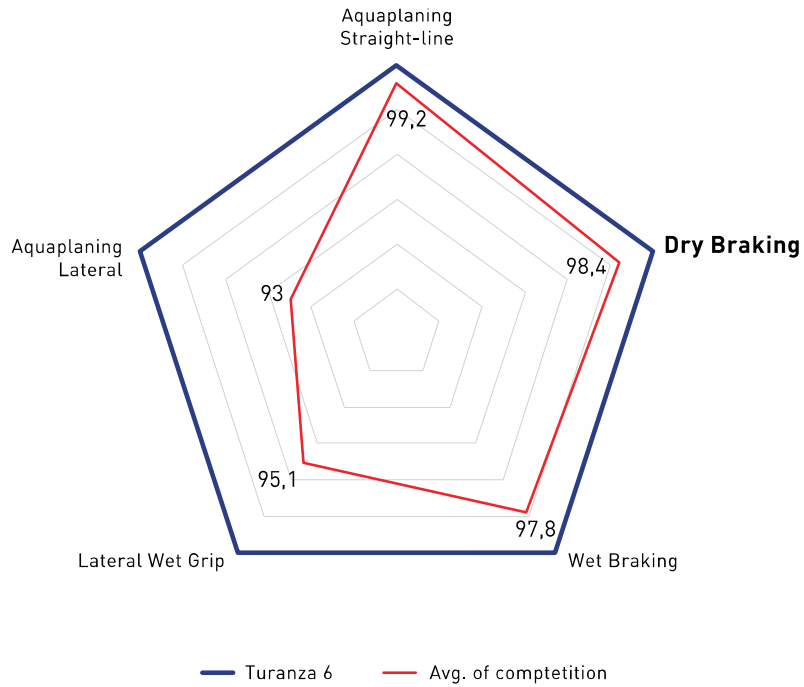
**Addressing driving challenge:**  
Vehicle stability in case of asymmetrical straight aquaplaning (only tyres on 1 side of the vehicle enter the puddle)



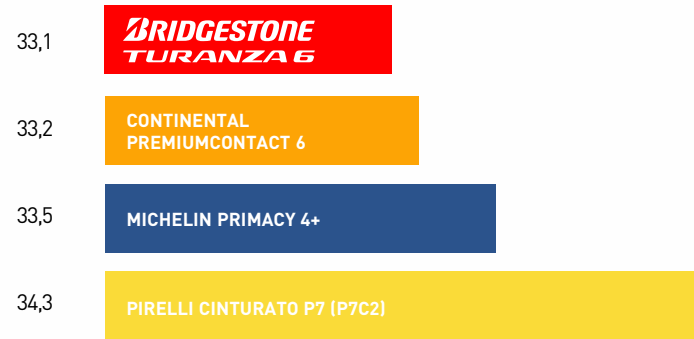




# DRY BRAKING



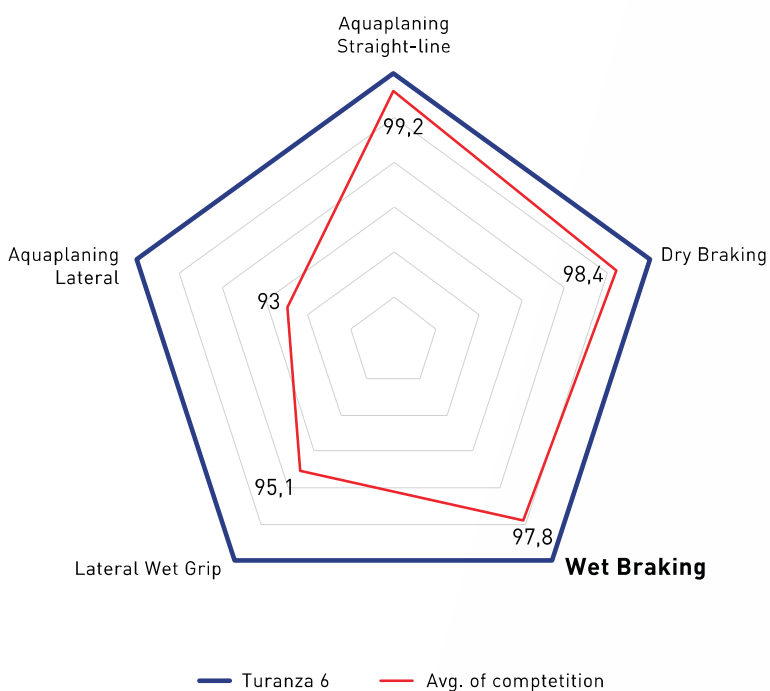
Ø CALC. STOPPING DISTANCE [m] 100 - 0 km/h  
 "The lower the better"



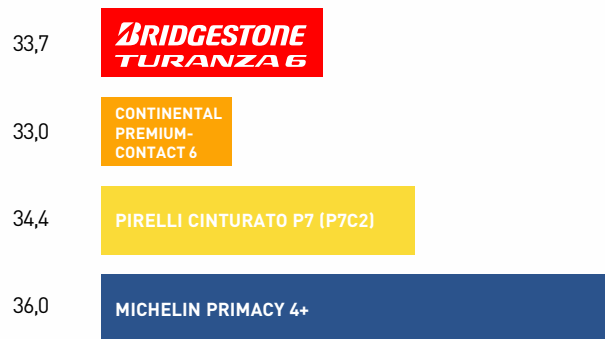
Addressing driving challenge:  
 avoiding obstacles



**WET BRAKING**



**Ø CALC. STOPPING DISTANCE [m] 80-20 km/h**  
"The lower the better"

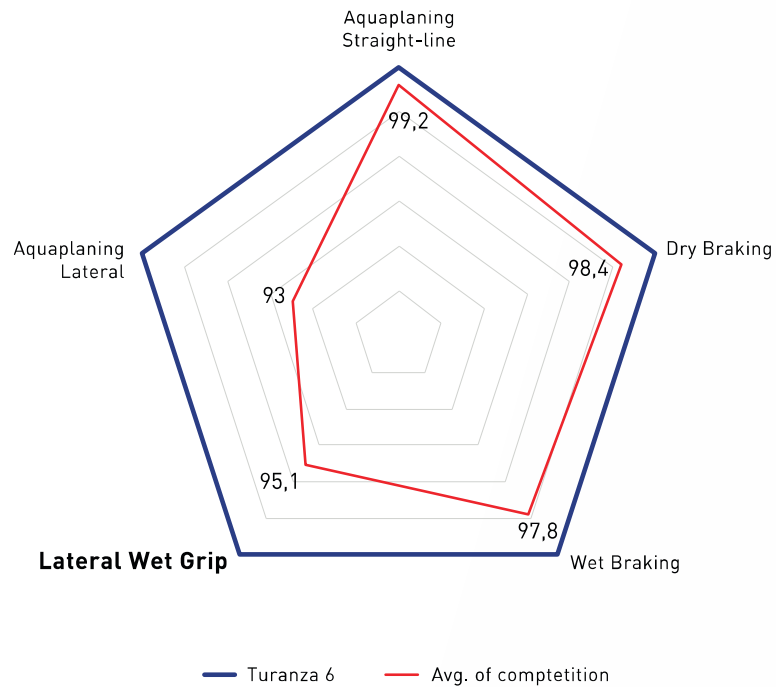


Addressing driving challenge:  
avoiding obstacles

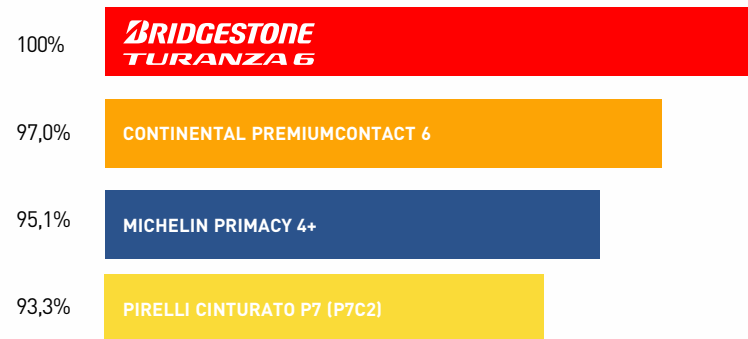




## WET CORNERING



## LATERAL WET GRIP PERFORMANCE [%] "The higher the better"

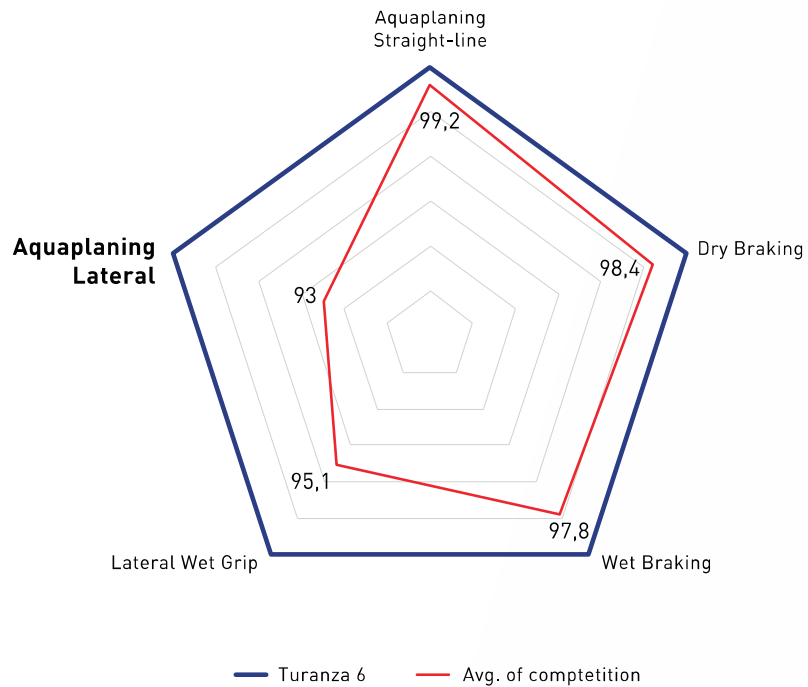


**Addressing driving challenge:**  
taking highway exit,  
entering roundabouts,  
overtaking at high speed

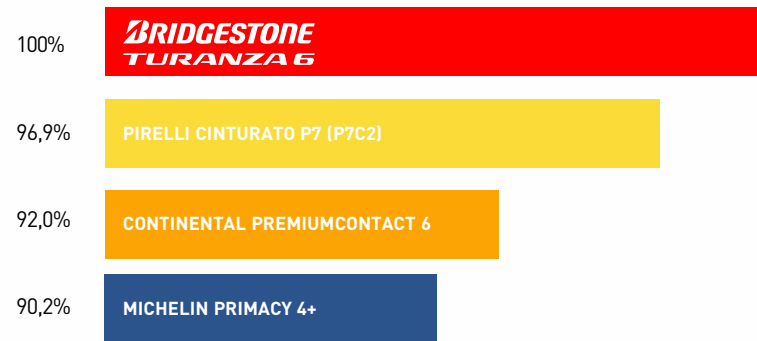




## CORNERING AQUAPLANING



## AQUAPLANING LATERAL PERFORMANCE [%] "The higher the better"



**Addressing driving challenge:**  
Entering or exiting, acceleration / deceleration lanes of the motorways (in case of rain this can be flooded)





# **BRIDGESTONE** **TURANZA 6**

TECHNICAL FEATURES



**BRIDGESTONE**  
Solutions for your journey

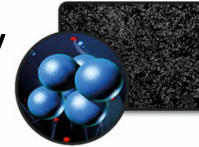


## BEST-IN-CLASS WET PERFORMANCE



### COMPOUND : TECHSYN TECHNOLOGY + NEW RESIN

- 1 Innovative mixing and Filler-Polymer chemistry to improve chemical reaction control, balancing reinforcing mechanism and improving filler dispersion



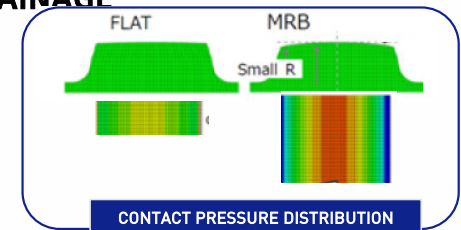
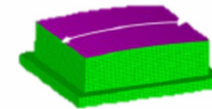
### PATTERN DESIGN

- 2 New divergent shoulder lug design for smoother evacuation
- 3 Double angle 3D washboard sipes: micro-drainage channels with no major trade off thanks to interlocking mechanics



### CAVITY DESIGN FOR IMPROVED WATER DRAINAGE

- 4 Multi round blocks for optimised pressure distribution: higher on rib centre, lower at rib edge allowing better water evacuation





## SUPERIOR MILEAGE



### 1 PATTERN DESIGN

**Different block length** between centre and shoulder for reducing mutual blocks slippage versus predecessor

**Double angle 3D washboard sipes:** interlocking mechanism for increasing local pattern stiffness and reducing slippage versus predecessor

### 2 COMPOUND : TECHSYN TECHNOLOGY + NEW RESIN

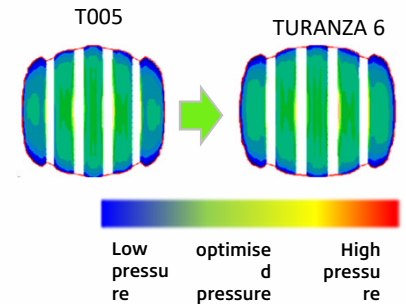
**Innovative mixing and Filler-Polymer chemistry** to improve chemical reaction control, balancing reinforcing mechanism and improving filler dispersion



### 3 CAVITY DESIGN

**Wider profile** for smoother pressure distribution and regular worn shape

**Wider ribs** for optimizing shear stress and reducing slippages





## IMPROVED FUEL / ENERGY EFFICIENCY



### 1 COMPOUND : TECHSYN TECHNOLOGY + NEW RESIN

Innovative mixing and Filler-Polymer chemistry to improve chemical reaction control, balancing reinforcing mechanism and improving filler dispersion



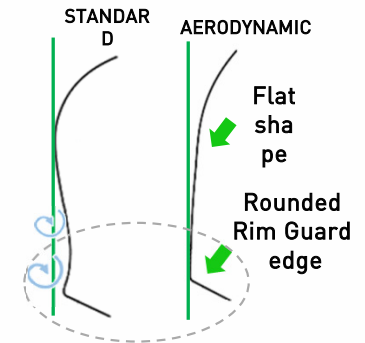
### 2 LOW RRC FABRIC

New low gauge body ply & tread plies for reducing tyre weight & hysteresis



### 3 CAVITY DESIGN

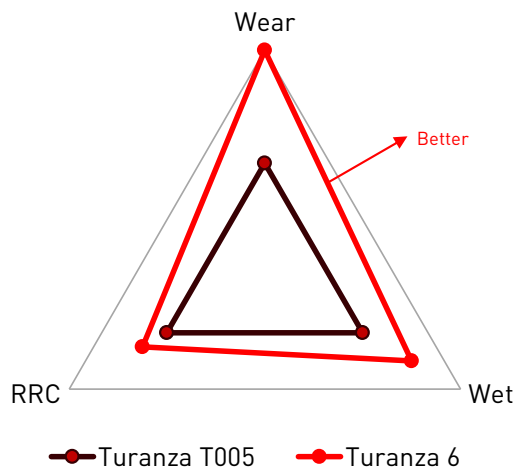
Application of aerodynamic Rim Guard shape to avoid sharp curvature changes and reducing drag forces





• TECHNICAL FEATURES | COMPOUND

optimised formula to maximise  
Wet and Wear performances



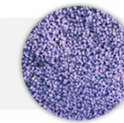
**INNOVATIVE MIXING AND FILLER-POLYMER CHEMISTRY** to improve chemical reaction control, balancing reinforcing mechanism and rolling resistance



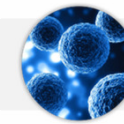
**ENHANCED FILLER-POLYMER INTERACTION**  
optimised Silica-Polymer chemistry



**FILLER / POLYMER COMPATIBILITY**  
morphology control



**REACTIVE MIXING**  
nano-scale reinforcement



## • TECHNICAL FEATURES | COMPOUND – TECHSYN INTRODUCTION

A co-developed tyre technology platform unlocking a new era of sustainable mobility.

# TECHSYN



UP TO

**30%**

**BETTER WEAR  
EFFICIENCY**



UP TO

**6%**

**REDUCTION IN  
ROLLING  
RESISTANCE <sup>1)</sup>**



- Extends designed tyre life by up to 30% <sup>2)</sup>
- Reduction in raw material consumption
- Less tyre wear material loss
- Improvement in fuel efficiency
- Reduced overall CO<sub>2</sub> emissions <sup>3)</sup>

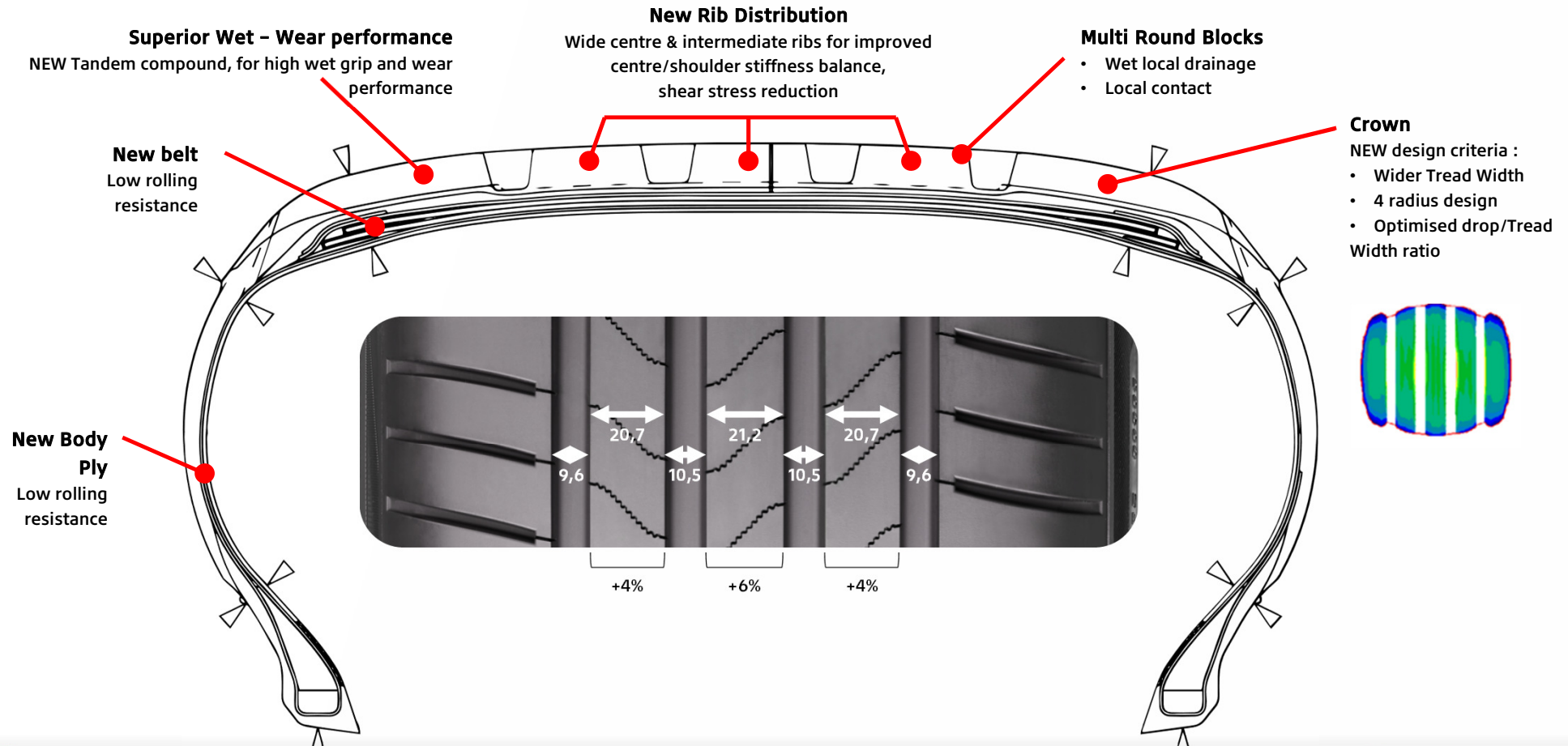
1. Compared to conventional Bridgestone EMIA summer products

2. Wear performance has been **evaluated** by Bridgestone's outdoor tests on 205/55 R16 vs. reference Bridgestone consumer summer tyres

3. Co<sub>2</sub> emissions relating to rolling resistance coefficient (RRC), which is measured in Bridgestone's indoor labs


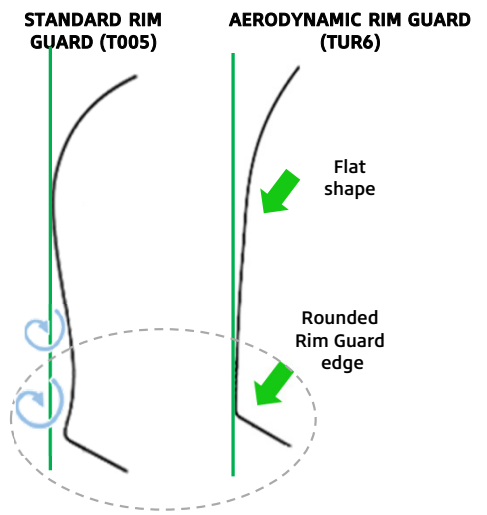


**ENABLING TYRES TO DELIVER UNRIVALLED STRENGTH AND  
ENVIRONMENTAL PERFORMANCE WITH NO TRADE-OFFS**

## • TECHNICAL FEATURES | CONSTRUCTION CASE AND CAVITY



## • TECHNICAL FEATURES | AERODYNAMIC Rim Guard

New aerodynamic shape of Rim Guard to reduce aero drag (based on VW OEM study), important step for OE/REP synergy

|                                |  |  |  |
|--------------------------------|--|--|--|
| <p><b>TURANZA<br/>T005</b></p> |   | <div data-bbox="1039 609 1522 1120"> <p><b>STANDARD RIM GUARD (T005)</b>      <b>AERODYNAMIC RIM GUARD (TUR6)</b></p>  <p>Flat shape</p> <p>Rounded Rim Guard edge</p> <p><b>Rim Guard rule for GEN6 Touring: <math>AR \leq 50</math> AND <math>R \geq 17</math></b><br/>This change has an effect on tyre appearance only (same performances and aero drag reduction).</p> </div> |  <p>Rim Guard protrusion from rim is the same in both configurations.</p> |
| <p><b>TURANZA 6</b></p>        |  |  |  |

INTRODUCING

**BRIDGESTONE**  
**POTENZA SPORT**

—

MASTER YOUR JOURNEY, AWAKEN YOUR SENSES



 ***BRIDGESTONE***

PRESENTS

---

# ***BRIDGESTONE*** ***POTENZA SPORT***

—  
TECHNICAL FEATURES



# POTENZA SPORT IS DESIGNED WITH A LARGE NUMBER OF NEW TECHNOLOGIES

NEW TECHNOLOGIES IN THE TREAD PATTERN, CONSTRUCTION AND COMPOUND GRANTS THE PREMIUM PERFORMANCE

## Tread Design



VIRTUAL DEVELOPMENT

- Sporty profile shape
- Asymmetric wall angle
- Optimised rib and void distribution
- Rib variable profile
- Innovative 3D sipes



## Tread Compound

- Innovative mixing technology

## Reinforcement Technology

- High-performance steel reinforcement
- New hybrid crown reinforcement

## Carcass Design

- Sporty carcass package







BEST CORNERING  
& STRAIGHT LINE STABILITY



BEST DRY BRAKING

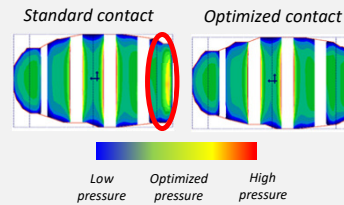
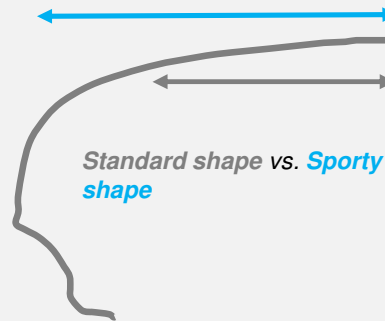


VIRTUAL DEVELOPMENT

### Sporty profile shape

To increase contact area and maximise dry performance

- **Extra wide profile** to maximise stability and braking potential
- **Optimised contact patch** to improve steering feel and controllability





BEST CORNERING  
& STRAIGHT LINE STABILITY



BEST DRY BRAKING



OUTSTANDING WET PERFORMANCE

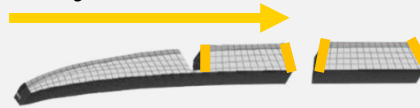


VIRTUAL DEVELOPMENT

### Asymmetric wall angle

Increases lateral stiffness and reduces block deformation

Lateral force during cornering

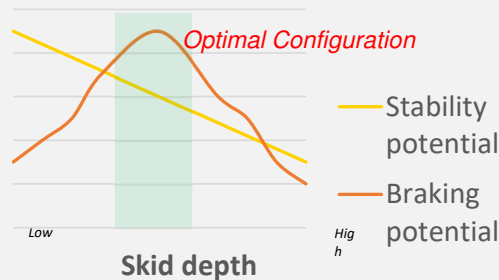
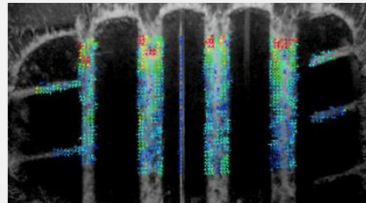


VIRTUAL DEVELOPMENT

### Optimised rib and void distribution

To maximise water evacuation, cornering power and braking potential

- **Optimised skid depth** for increased lateral and longitudinal stiffness





BEST CORNERING  
& STRAIGHT LINE STABILITY



BEST DRY BRAKING



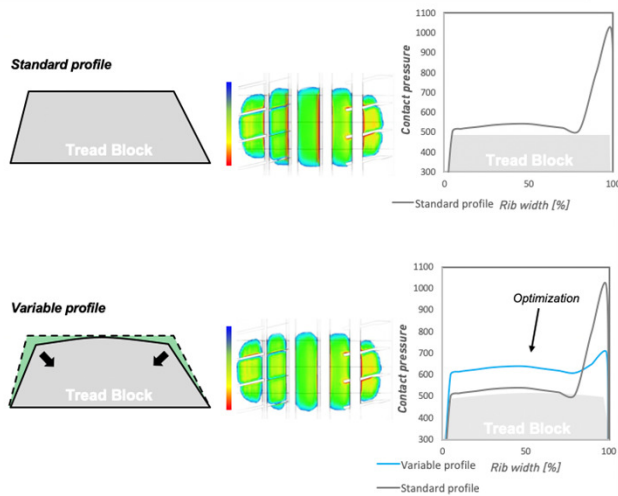
OUTSTANDING WET PERFORMANCE



VIRTUAL DEVELOPMENT

### Rib variable profile

For more efficient contact pressure  
and wet friction

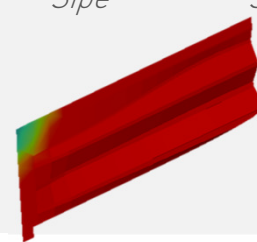
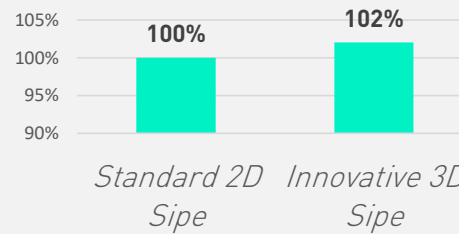


VIRTUAL DEVELOPMENT

### Innovative 3D sipes

To increase shear stiffness with benefits  
in braking and abrasion resistance

#### Braking Potential



# POTENZA SPORT

Our premium high-performance tyre



 **BEST CORNERING & STRAIGHT-LINE STABILITY <sup>1</sup>**

 **BEST DRY BRAKING <sup>2</sup>**

 **OUTSTANDING WET PERFORMANCE <sup>3</sup>**



| WIDTH     |     | SERIES  | RIM    | SIZES |     |  |
|-----------|-----|---------|--------|-------|-----|--|
| 205 – 325 |     | 30 – 55 | 17-22" | 96    |     |  |
| 17"       | 18" | 19"     | 20"    | 21"   | 22" |  |
| 7         | 22  | 27      | 26     | 10    | 4   |  |

## Also chosen by OEMs

| WIDTH   |     | SERIES | RIM    | ART NR'S / ≥ 17" |     |     |
|---------|-----|--------|--------|------------------|-----|-----|
| 205-315 |     | 30-50  | 17-23" | 32 / 32          |     |     |
| 17"     | 18" | 19"    | 20"    | 21"              | 22" | 23" |
| 1       | 1   | 3      | 20     | 2                | 3   | 2   |

1) Maintain vehicle stability when travelling both in a straight line and through a curve. • 2) Shortest braking distance on a dry surface. • 3) Awarded EU Label Grade A for Wet Grip Index. • 4) Rank 1 of 9

\*Tests carried out by TÜV SÜD on the request of Bridgestone in July-September 2020 at the facilities Bridgestone EUPG (Italy) for dry and wet tests with Audi S4 3.0 TFSI, on tyre size 245/40 R18. Potenza Sport compared to the performances of main competitors in the same segment: Continental PremiumContact 6, Michelin Pilot Sport 4, Goodyear Eagle F1 Asymmetric 5, Pirelli P Zero PZ4. Annex Report No. [713190691-PS]. **Straight stability**, rating: Bridgestone Potenza Sport (9.33), Continental Premium Contact 6 (9.00), Michelin Pilot Sport 4 (8.67), Goodyear Eagle F1 Asymmetric 5 (8.67), Pirelli P Zero PZ4 (8.56). **Cornering stability**, rating: Bridgestone Potenza Sport (9.21), Continental Premium Contact 6 (8.13), Michelin Pilot Sport 4 (8.67), Goodyear Eagle F1 Asymmetric 5 (8.33), Pirelli P Zero PZ4 (8.58). **Dry braking distance** (100 km/h to 0 km/h), metres : Bridgestone Potenza Sport (33.4), Continental Premium Contact 6 (35.4), Michelin Pilot Sport 4 (34.5), Goodyear Eagle F1 Asymmetric 5 (35.9), Pirelli P Zero PZ4 (34.8).



Product & OE

**BRIDGESTONE**

# **BRIDGESTONE** **POTENZA SPORT**

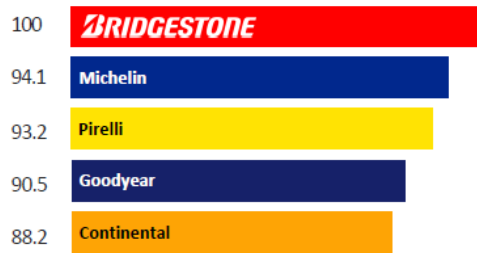
—  
THIRD-PARTY TEST RESULTS



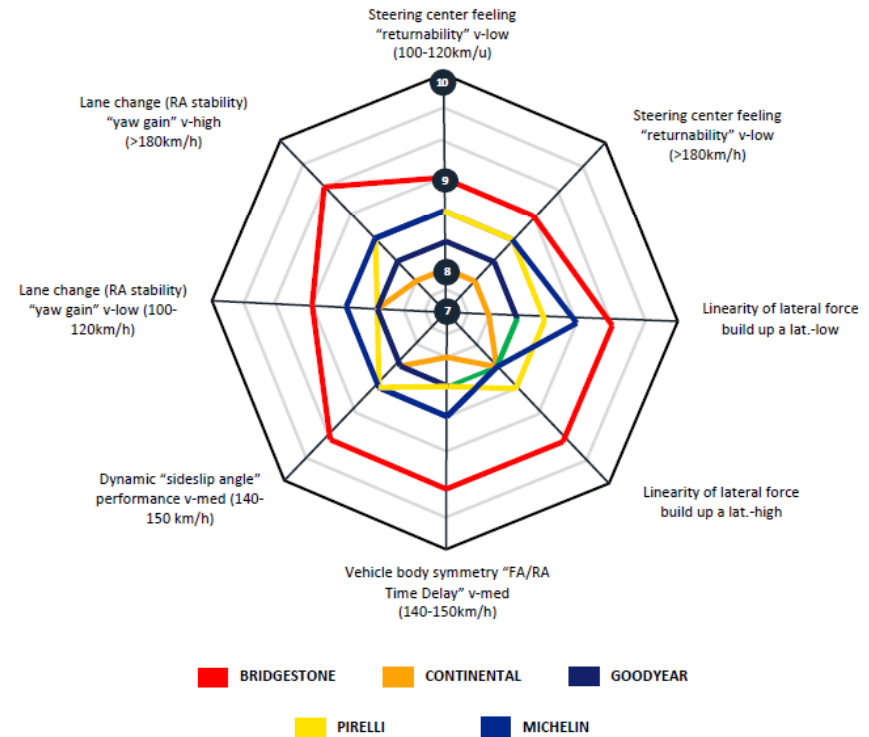


Best Cornering  
& Straight Line Stability (1/3)

CORNERING STABILITY PERFORMANCE [%]\*



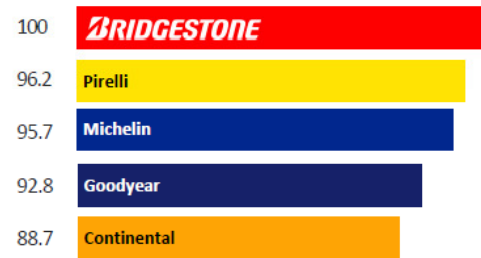
\* The calculation of the percentage performance is based on the rating scores



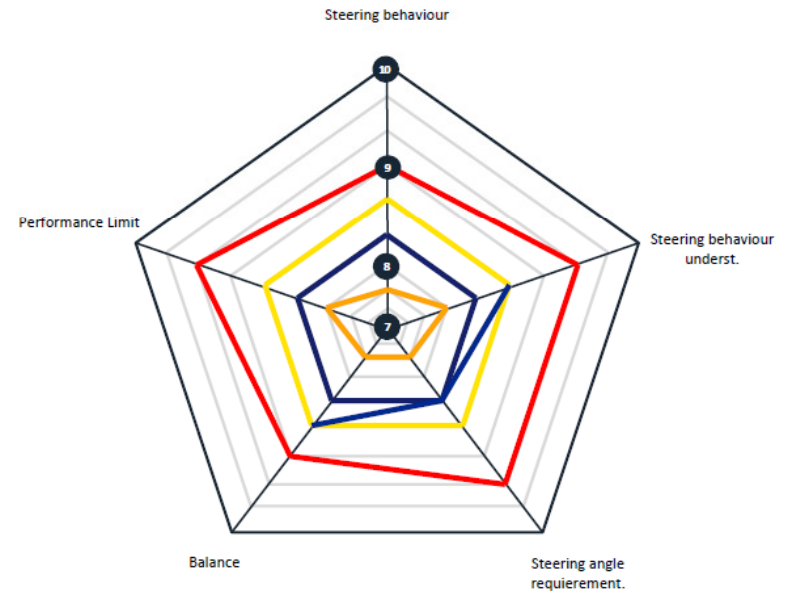


Best Cornering  
& Straight Line Stability (2/3)

SLALOM STABILITY PERFORMANCE [%]\*



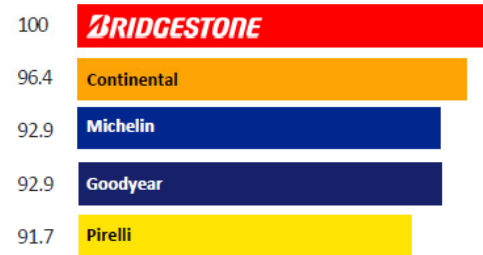
\* The calculation of the percentage performance is based on the speed of the rating scores (at the ratio 2:1)



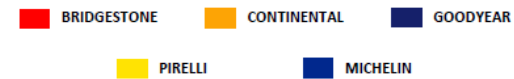
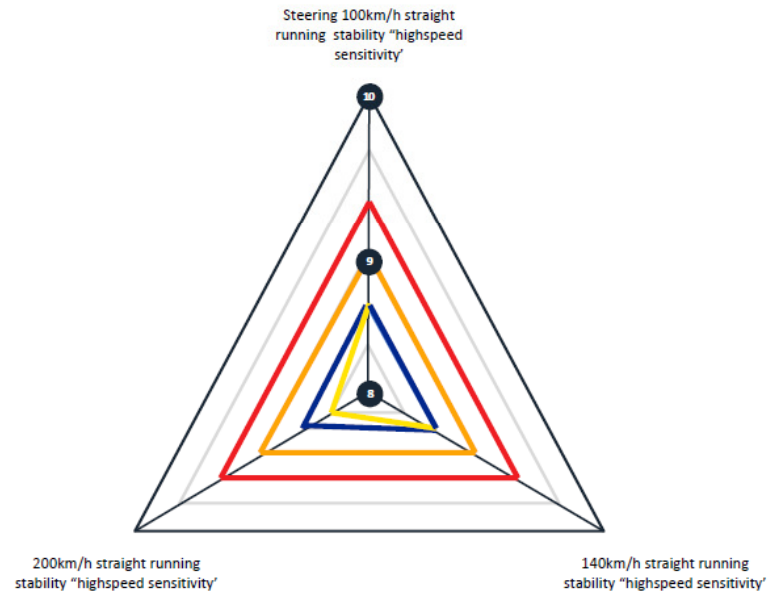


### Best Cornering & Straight Line Stability (3/3)

## STRAIGHT STABILITY PERFORMANCE [%]\*



\* The calculation of the percentage performance is based on the rating scores



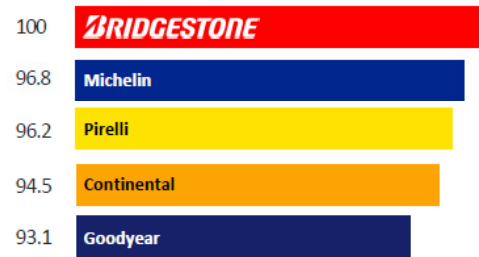




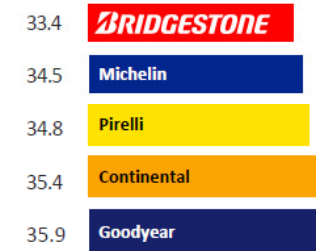
Best Dry Braking

## DRY BRAKING PERFORMANCE

PERFORMANCE [%]\*



STOPPING DISTANCE [m] 100-0 Km/h



\* The calculation of the percentage performance is based on the mean deceleration values resulting from the measured braking distances.



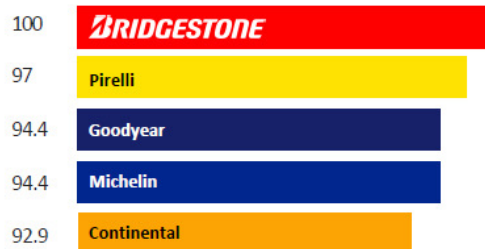


Outstanding Wet Performance [1/2]

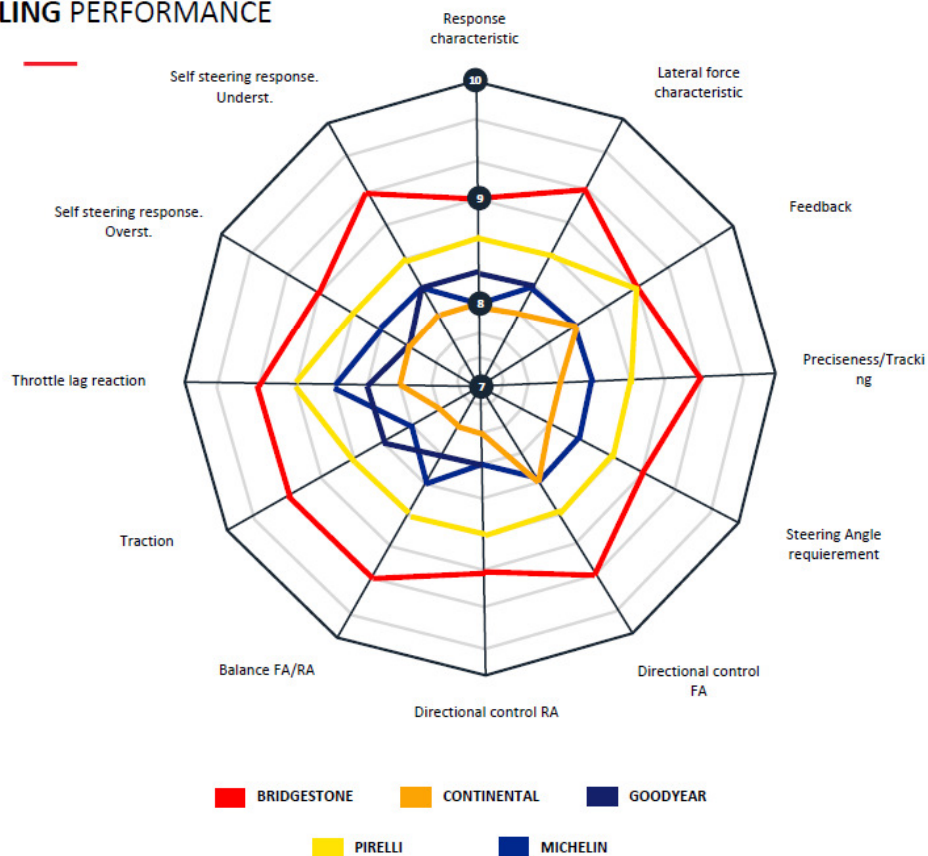


### WET HANDLING PERFORMANCE

PERFORMANCE [%]\*



\* The calculation of the percentage performance is based on the speed of the rating scores (at the ratio 2:1)

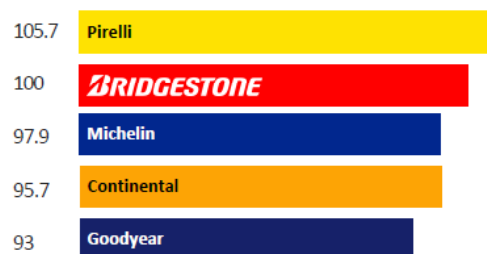




Outstanding Wet Performance [2/2]

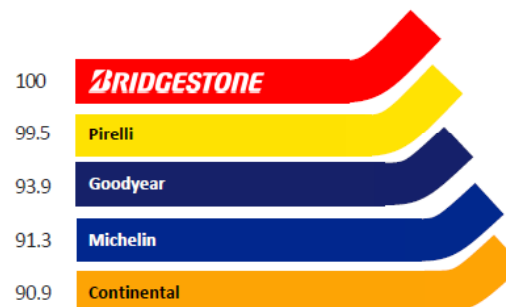
## WET PERFORMANCE INDICATORS

### WET BRAKING PERFORMANCE [%]\*



\* The calculation of the percentage performance is based on the mean deceleration values resulting from the measured braking distances.

### LATERAL WET GRIP PERFORMANCE [%]\*



\* The calculation of the percentage performance is based on the mean lateral acceleration values resulting from the measured lap times.



***BRIDGESTONE***  
***POTENZA RACE***

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***BRIDGESTONE***

***BRIDGESTONE***



INTRODUCING...

# ***DUELER*** ***ALL-TERRAIN***

**/** PREPARED TO PERFORM,  
WHATEVER THE TERRAIN

**NEW**



**BRIDGESTONE**  
Solutions for your journey

## RATIONAL SIDE OF OWNING & DRIVING A 4x4 VEHICLE

**'I don't have to worry about the terrain.  
I can just go to where I need to go'**

*—M, Johannesburg, South Africa*

**'They can go anywhere, the clearance is  
good, they are dependable when it comes  
to rough and soft terrain'**

*—M, Nairobi, Kenya*

**'Load space and you can fit the family into  
the vehicle'**

*—M, Madrid, Spain*



### **SAFETY**

To feel in control of the road. To feel confident that no one will push you off the road.

### **CAPABILITY**

Being able to perform & tackle any ground, regardless the weather or rough terrain.

### **CONVENIENCE**

Spacious to offer comfort for the driver & the family. And spacious to transport things.

GAME CHANGERS





## EMOTIONAL SIDE OF OWNING & DRIVING A 4x4 VEHICLE

### FEELING OF FREEDOM

Being able to go everywhere and nothing will stop you.

### EMPOWERMENT

Feeling confident, like the boss of the road. Dominate the road "you literally look down on people" by physically sitting higher.

### BADGE OF STATUS

Since such vehicles require a big investment, owning a 4x4 can be a way to show means.

### FUN & ADVENTUROUS

An uplifting feeling to go on an adventure and have fun while exploring new terrains.

**'No limits. You can have fun and go on an adventure'**  
-M, Madrid, Spain

**'You command some respect even on the road with matatus and even the police does not disturb you on the roads'**  
-M, Nairobi, Kenya

**'You feel like a boss on the road'**  
-M, Johannesburg, South Africa

GAME CHANGERS



THE CONSUMER



For **premium** on/off tyre buyers.

THE JOURNEY



Who want **full control** both in on & off-road conditions.

THE BRAND



Bridgestone Dueler prepares you to perform, during off-road challenges while keeping you on track on your on-road journeys.

THE TYRE



Dueler All-Terrain A/T002 prepares you to perform with the best control in all road conditions regardless of terrain.



***BRIDGESTONE***

## PRODUCT INFO | UNIQUE SELLING POINTS



### AGGRESSIVE TYRE DESIGN

Better adaptation & reaction over different ty



### EXCELLENT WET AND DRY GRIP

High control in both straight & cornering ma



### IMPROVED MILEAGE <sup>1)</sup>

Up to 40% improvement vs. predecessor

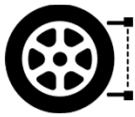
1) Based on internal benchmark Dueler All-Terrain AT/002 vs. Dueler A/T001 (r



**BRIDGESTONE**  
Solutions for your journey

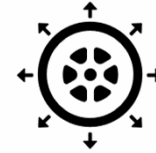
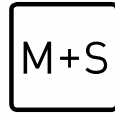
## PRODUCT INFO | DEMAND COVERAGE (FOCUS ON NEW SIZES)

Dueler All-Terrain A/T002 significantly increases coverage in demand with 19 new short sizes in the 15inch to 19inch Off-Road segment



**43**

LONG & SHORT SIZES



**52%**

A/T001

**74%**

A/T002

**INCREASED DEMAND COVERAGE**

Source: Europool 2022 data  
(long size higher LI/SS  
covering lower LI/SS)

| RIM | A/T 001<br>N° of Long Size | A/T 002<br>N° of Long Size |
|-----|----------------------------|----------------------------|
| 15" | 8                          | 9                          |
| 16" | 9                          | 13                         |
| 17" | 5                          | 11                         |
| 18" | 2                          | 9                          |
| 19" |                            | 1                          |

**19**

NEW SIZES

**NEW**



**BRIDGESTONE**  
Solutions for your journey

## TECHNICAL FEATURES | AGGRESSIVE TYRE DESIGN



### 1 MODERN ALL-TERRAIN DESIGN WITH HEXAGONAL CENTRE BLOCKS SHAPE

Innovative block shape and pattern architecture for a good traction and braking balance on different surfaces.

### 2 DETAILED CIRCUMFERENTIAL AND LATERAL GROOVES DESIGN

To grasp mud and snow for enhanced traction while keeping tyre clean when back on asphalt.

### 3 CIRCUMFERENTIAL CONNECTION BETWEEN SHOULDER AND SIDEWALL DESIGN

Staggered shoulder blocks extended to upper sidewall for safe traction on most severe mud/snow conditions.

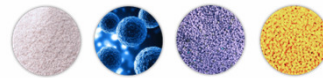


## TECHNICAL FEATURES | EXCELLENT WET AND DRY GRIP



### 1 HIGH SILICA CONTENT COMPOUND

To deliver a superior adhesion wet performance.



### 2 OPTIMISED RIB AND VOID DISTRIBUTION

To prevent hydroplaning evacuating fastly water on wet condition.

### 3 Z-SHAPED SIPES



To increase biting edges enhancing lateral and longitudinal grip.

## TECHNICAL FEATURES | IMPROVED MILEAGE



### 1 ALL-TERRAIN PROFILE

Specific tyre profile  
to maximise footprint's width.

---

### 2 OPTIMISED CONTACT PATCH

5 rib technology with hexagonal blocks and staggered  
pattern architecture  
to guarantee even stiffness and contact pressure distribution.

---

### 3 INCREASED SKID DEPTH

To further boost mileage with no trade off in rolling  
resistance thanks to higher natural rubber content.



• DUELER ALL-TERRAIN A/T 002 IS AVAILABLE FOR A RANGE OF VEHICLES\*



Ford Ranger



Jeep Wrangler



Toyota Hilux



VW Amarok



Nissan Pathfinder



Isuzu D-Max



Toyota Landcruiser Prado



Suzuki Grand Vitara



Mitsubishi Pajero



Land Rover Defender



Toyota Land Cruiser



Nissan Terrano



Toyota RAV4



Nissan X-Trail



Nissan Patrol



Jeep Renegade



Ford F-150



Toyota FJ Cruiser



Ford Bronco



Ineos Grenadier



Jeep Cherokee



Land Rover Discovery



Mercedes G-Class



Suzuki Jimny

\* Source : [www.wheel-size.com](http://www.wheel-size.com)

Vehicles and firmment sizes refer to the pure Replacement market, sizes in scope are not necessarily homologated by the respective Original Equipment Manufacturers



# **DURAVIS VAN**

PRODUCT PRESENTATION



**BRIDGESTONE**  
Solutions for your journey



# **DURAVIS VAN**

PRODUCT INFO



**BRIDGESTONE**  
Solutions for your journey



**/ PREPARED TO PERFORM FOR  
YOUR BUSINESS'S EFFICIENCY**

• DURAVIS VAN ENLITEN



**What is ENLITEN telling about DURAVIS VAN?**

- Best in class dry&wet braking & sustainability improvements through lower RRC & best in class mileage
- Duravis Van is featuring ENLITEN technology allowing us to achieve outstanding performances with a step change towards sustainability

## • DURAVIS VAN ENHANCEMENT VS. THE PREDECESSOR DURAVIS R660\*

Compared to DURAVIS R660 there are significant improvements achieved with the launch of DURAVIS VAN:



### WET BRAKING

- > 14% Improvement vs R660
- > Label from B to A



### MILEAGE

- > 25% increase vs R660



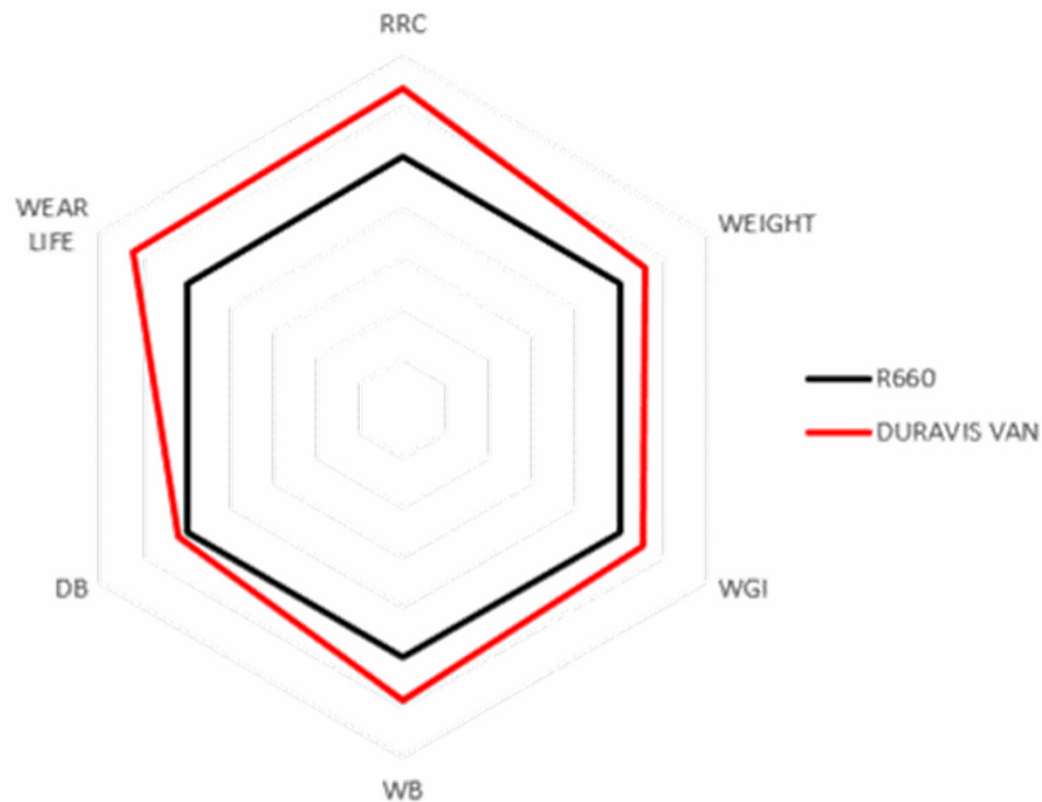
### ROLLING RESISTANCE

- > 21% Improvement vs R660
- > Label from C to B











### PASS-BY NOISE

- > -2 dB vs R660
- > Label from B to A



\* Ref. 205/65R16C 107/105T pilot size.

• DURAVIS VAN – ENLITEN TECHNOLOGIES DELIVERING DURAVIS VAN VALUE PROPOSITION

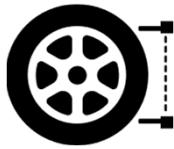
|  <b>TOOLBOX</b> |  |  <b>PERFORMANCE</b> |  |   |  |   |  <b>NOISE</b> |
|--|--|--|--|---|--|---|--|
|  |  |  <b>WET BRAKING</b>   |  <b>RRC</b> |  <b>WEAR</b> |  <b>DRY BRAKING</b> |  <b>WEIGHT</b> |  |
| <b>Δ vs current R660 (*)</b><br><i>* Measurements done on pilot size 205/65R16C.</i>             |  | <b>+14%</b><br>[WGI from B to A class for all line-up]   | <b>-21%</b><br>[from C/E to B CLASS for all line-up]   | <b>+25%</b>   | <b>+4%</b>   | <b>-11%</b><br>[-1.3 kg]  | <b>-2 dB</b><br>[from B classto A class for all line-up]   |
| <b>TREAD COMPOUND</b>  | Innovative mixing technology                     | Optimized <u>polymer blend</u> and plasticizer type (resin)  | Lower compound dissipation thanks to <u>Silica technology</u>                                | <u>Polymer-Silica optimized interaction</u> & good Silica dispersion                            | Plasticizer reduction  |   |  |
| <b>TIRE FABRIC</b>   | New low RR technology for belt/spiral/body plies |  | Reduced energy dissipation of skim compound  |   |  | Lower fabrics weight  |  |
| <b>MOLD DESIGN</b>   | Optimized cavity shape and groove design         | Water drainage improvement   | Energy loss distribution optimized inside the tire   | Optimized pressure and wear energy distribution inside the contact patch                        | Optimized pressure distribution inside the contact patch   |   |  |
|  | Optimized pattern design through sipes dimension | Water film cut improved  |  | Local Wear Energy reduced   |  |   | More progressive blocks impact   |

- **BRIDGESTONE DURAVIS VAN**
- PRODUCT INFO – DEMAND COVERAGE

# DURAVIS VAN

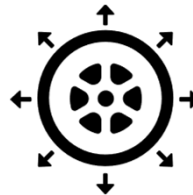
FROM THE LIGHTEST TO THE HEAVIEST LCV VEHICLE

Long Sizes



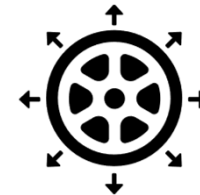
26

Demand Coverage\*



96%

High Load 10PR Sizes



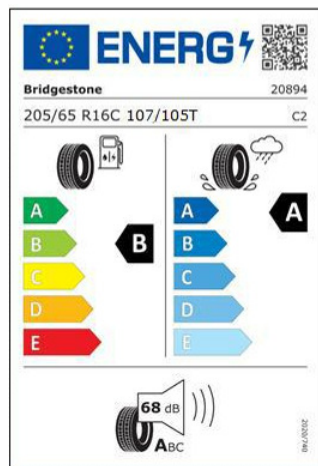
6

\* 14"15"16"17" demand considered  
Locally adapted



## • TECHNICAL FEATURES | LABELLING ESTIMATION

| RIM             | IPC                  | DIMENSION            | RR <sub>c</sub> | WGI | PBN |
|-----------------|----------------------|----------------------|-----------------|-----|-----|
| 15"<br>6 sizes  | 20881                | 195/70 R15C 104/102S | B               | A   | A   |
|                 | 20883                | 205/65 R15C 102/100T | B               | A   | A   |
|                 | 20886                | 215/65 R15C 104/102T | B               | A   | A   |
|                 | 20884                | 205/70 R15C 106/104R | B               | A   | A   |
|                 | 20885                | 215/70 R15C 109/107S | B               | A   | A   |
|                 | 20887                | 225/70 R15C 112/110S | B               | A   | A   |
| 16"<br>17 sizes | 20888                | 185/75 R16C 104/102R | B               | A   | A   |
|                 | 20892                | 195/60 R16C 99/97H   | B               | A   | A   |
|                 | 20891                | 195/65 R16C 104/102T | B               | A   | A   |
|                 | 20889                | 195/75 R16C 107/105T | B               | A   | A   |
|                 | 20890                | 195/75 R16C 110/108R | B/C             | A   | A   |
|                 | 20894                | 205/65 R16C 107/105T | B               | A   | A   |
|                 | 20895                | 205/75 R16C 110/108R | B               | A   | A   |
|                 | 20893                | 205/75 R16C 113/111R | B/C             | A   | A   |
|                 | 20897                | 215/60 R16C 103/101T | B               | A   | A   |
|                 | 20896                | 215/65 R16C 109/107T | B               | A   | A   |
|                 | 20899                | 215/65 R16C 106/104T | B               | A   | A   |
|                 | 20900                | 215/75 R16C 113/111R | B               | A   | A   |
|                 | 20901                | 215/75 R16C 116/114R | B               | A   | A   |
|                 | 20902                | 225/65 R16C 112/110T | B               | A   | A   |
|                 | 20903                | 225/75 R16C 121/120R | B               | A   | A   |
| 20905           | 235/65 R16C 115/113R | B                    | A               | A   |     |
| 20906           | 235/65 R16C 121/119R | B                    | A               | A   |     |
| 17"<br>3 sizes  | 20907                | 215/60 R17C 109/107T | B               | A   | A   |
|                 | 25773                | 225/55 R17C 109/107H | B               | A   | A   |
|                 | 25771                | 235/60 R17C 117/115R | B               | A   | A   |



- Potential of Wet Grip Index A class is confirmed for all line-up.
- Based on results of pilot sizes, testing history of Duravis R660 and new tool developed by digital department, estimated RRC for all line-up is around B class, with the sole exception of 2 IPCs
- Potential for Pass by Noise is A class with better level of dB vs R660 (-2dB)

## • BRIDGESTONE DURAVIS VAN

### • Product Info – Line Up



| RIM                    | IPC   | DIMENSION            |
|------------------------|-------|----------------------|
| <b>15"</b><br>6 sizes  | 20881 | 195/70 R15C 104/102S |
|                        | 20883 | 205/65 R15C 102/100T |
|                        | 20886 | 215/65 R15C 104/102T |
|                        | 20884 | 205/70 R15C 106/104R |
|                        | 20885 | 215/70 R15C 109/107S |
|                        | 20887 | 225/70 R15C 112/110S |
| <b>16"</b><br>17 sizes | 20888 | 185/75 R16C 104/102R |
|                        | 20892 | 195/60 R16C 99/97H   |
|                        | 20891 | 195/65 R16C 104/102T |
|                        | 20889 | 195/75 R16C 107/105T |
|                        | 20890 | 195/75 R16C 110/108R |
|                        | 20894 | 205/65 R16C 107/105T |
|                        | 20895 | 205/75 R16C 110/108R |

| RIM                    | IPC   | DIMENSION            |
|------------------------|-------|----------------------|
| <b>16"</b><br>17 sizes | 20893 | 205/75 R16C 113/111R |
|                        | 20897 | 215/60 R16C 103/101T |
|                        | 20896 | 215/65 R16C 109/107T |
|                        | 20899 | 215/65 R16C 106/104T |
|                        | 20900 | 215/75 R16C 113/111R |
|                        | 20901 | 215/75 R16C 116/114R |
|                        | 20902 | 225/65 R16C 112/110T |
|                        | 20903 | 225/75 R16C 121/120R |
|                        | 20905 | 235/65 R16C 115/113R |
|                        | 20906 | 235/65 R16C 121/119R |
| <b>17"</b><br>3 sizes  | 20907 | 215/60 R17C 109/107T |
|                        | 25773 | 225/55 R17C 109/107H |
|                        | 25771 | 235/60 R17C 117/115R |

Extra high load (10PR)



# **DURAVIS VAN**

THIRD-PARTY TEST RESULTS

2022 © BRIDGESTONE EMIA



**BRIDGESTONE**  
Solutions for your journey

## DURAVIS VAN | USPS



### BEST-IN-CLASS MILEAGE <sup>1)</sup>

Highest rated tyre for mileage vs. premium summer van tyres <sup>1)</sup>



### BEST-IN-CLASS DRY & WET BRAKING PERFORMANCES <sup>2)</sup>

Shortest braking distance on wet & dry roads vs. premium summer van tyres <sup>2)</sup>



### INCREASED FUEL / ENERGY EFFICIENCY <sup>3)</sup>

-21% rolling resistance vs predecessor.



### ELECTRIC VEHICLE READY:

TYRE DESIGNED TO MEET THE SPECIFIC REQUIREMENTS OF ELECTRIC VEHICLES.



<sup>1)</sup> Tests carried out by TÜV SÜD on the request of Bridgestone in July – August 2022 with VW Caravelle 2.0 TDI, on tyre size 205/65 R16C Duravis Van compared to the performances of main competitors in the same segment: Michelin Agilis 3, Continental VanContact Ultra, Goodyear Ultragrip Cargo2. TÜV SÜD Report No. [713262236]. MILEAGE rating: BRIDGESTONE Duravis Van (100%), MICHELIN Agilis 3 (96.7%), CONTINENTAL VanContact Ultra (93.3%), GOODYEAR EfficientGrip Cargo2 (64.4%).

<sup>2)</sup> Tests carried out by TÜV SÜD on the request of Bridgestone in July – September 2022 at the facility of ATP Papenburg (D) for tests with VW Caravelle & Mercedes-Benz Sprinter, on tyre size 205/65 R16C Duravis Van compared to the performances of main competitors in the same segment: Continental VanContact Ultra, Goodyear Ultragrip Cargo2, Michelin Agilis 3, Pirelli Carrier. TÜV SÜD Report No. [713262224]. WET BRAKING [Stopping distance [m] from 80 to 20 km/h] rating: BRIDGESTONE Duravis Van (100%), GOODYEAR EfficientGrip Cargo2 (99.9%), PIRELLI Carrier (98.5%), CONTINENTAL VanContact Ultra (97%), MICHELIN Agilis 3 (95.3%). DRY BRAKING [Stopping distance [m] from 100 to 0 km/h] rating: BRIDGESTONE Duravis Van (100%), GOODYEAR EfficientGrip Cargo2 (98.7%), CONTINENTAL VanContact Ultra (98.1%), PIRELLI Carrier (97.4%) MICHELIN Agilis 3 (96.3%).

<sup>3)</sup> Based on internal benchmark Duravis Van vs Duravis R660 (ref. size 205/65 R16C).

• DURAVIS VAN | TEST RESULTS



**BEST-IN-CLASS MILEAGE**



**Mileage**

performance

100 **BRIDGESTONE**

96.7 **Michelin**

93.3 **Continental**

64.4 **Goodyear**



<sup>1)</sup> Tests carried out by TÜV SÜD on the request of Bridgestone in July and September 2022 with VW Caravelle 2.0 TDI, on tyre size 205/65 R16C Duravis Van compared to the performances of main competitors in the same segment: Michelin Agilis 3, Continental VanContact Ultra, Goodyear Ultragrip Cargo2. TÜV SÜD Report No. 713262236.

• DURAVIS VAN | TEST RESULTS

 **BEST-IN-CLASS DRY & WET BRAKING PERFORMANCES**



**Dry braking (%) <sup>1)</sup>**



**Wet braking (%) <sup>2)</sup>**



1) The calculation of the percentage performance is based on the mean deceleration values on dry asphalt resulting from the measured braking distances.  
2) The calculation of the percentage performance is based on the mean deceleration values on wet asphalt resulting from the measured braking distances.



# **DURAVIS VAN**

TECHNICAL FEATURES

2022 © BRIDGESTONE EMIA

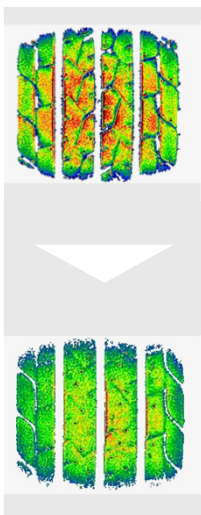


**BRIDGESTONE**  
Solutions for your journey

- **BRIDGESTONE DURAVIS VAN**

- Technical features – New Pattern

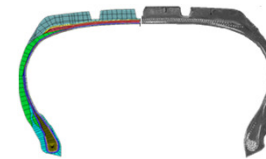
Innovative symmetric pattern with reduced void at centre improving rib stiffness & keeping good level of wear



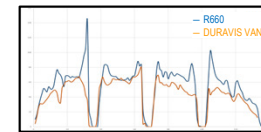
**DURAVIS  
R660**

**DURAVIS  
VAN**

Cavity crown shape optimization  
For even contact

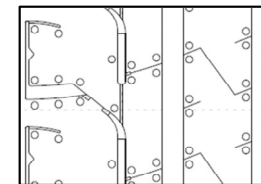


Enhanced contact technology study  
For even wear and noise



Wear energy profiles

New sipes design & void distribution  
For water evacuation

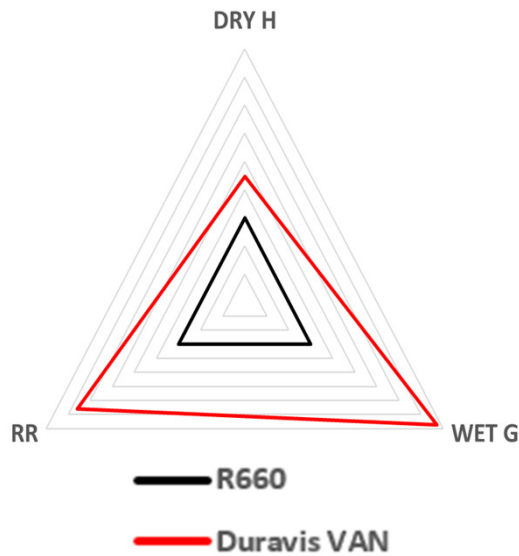




- **BRIDGESTONE DURAVIS VAN**

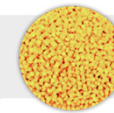
- Technical features – New Pattern

Optimized formula to maximise RRC/WET/ DRY performance.



Innovative mixing to improve chemical reaction control, balancing reinforcing mechanism and rolling resistance

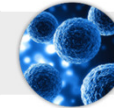
**MISCIBLE RESIN**  
compatible



**HIGH FILLER AMOUNT**  
reinforcing silica



**REACTIVE MIXING**  
nano-scale reinforcement



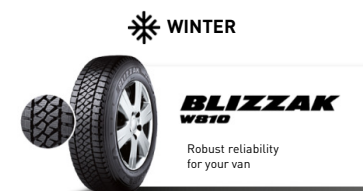
- **BRIDGESTONE DURAVIS VAN**
- Technical features – Sidewall Protector Rib

### SIDEWALL PROTECTOR RIB

Additional circumferential rubber layer to protect from curbs impacts



• CHOOSE THE RIGHT BRIDGESTONE VAN TYRE FOR EVERY SEASON



| DEFINITION          | Achieves high performance in summer conditions | Balances summer and winter driving capabilities, all year round | Overcomes winter driving challenges   |
|---------------------|--|---|---|
| CONDITIONS          | Dry and wet roads                              | Dry and wet roads, occasional snow in urban areas               | Dry and wet roads, snow, occasional ice, including urban and mountain areas |
| WET                 | ★★★★☆  | ★★★★★   | ★★★★☆   |
| DRY                 | ★★★★★  | ★★★★☆   | ★★★☆☆   |
| SNOW                | Not for usage on snow                          | ★★★★☆   | ★★★★★   |
| 3PMSF SYMBOL        | -  |   |   |
| MILEAGE PERFORMANCE | ★★★★★  | ★★★★☆   | ★★★☆☆   |
| SIDEWALL PROTECTOR  | YES  | YES   | YES   |

The table shows a comparative rating of BS products. The performance rating is based on internal test data of BS products (Duravis VAN vs W810 vs Duravis AS) with tyre size 205/65R16C 107/105 (8PR). Internal performance assessment have been done for dry (braking), wet (braking), snow (average of braking & traction) and mileage (Mileage ratio). For each performance, products have been ranked on an index (higher the better) where for dry Duravis VAN = 100; for wet Duravis AS=100; for snow and mileage tests W810 = 100. This is translated into star rating (5 stars: 100-86, 4 stars: 85 - 75, 3 stars 74 - 60 for dry wet and snow; 5 stars: 250-350, 4 stars: 150-250, 3 stars: 100 - 150 for mileage). 5 stars means the best performance among the 3 BS products in that condition.



# **DURAVIS ALL SEASON**

PRODUCT PRESENTATION



**BRIDGESTONE**  
Solutions for your journey

## DURAVIS ALL SEASON

DURAVIS, BRIDGESTONE'S REFERENCE FOR TOTAL FLEET APPROACH (VAN & HEAVY DUTY VEHICLES)



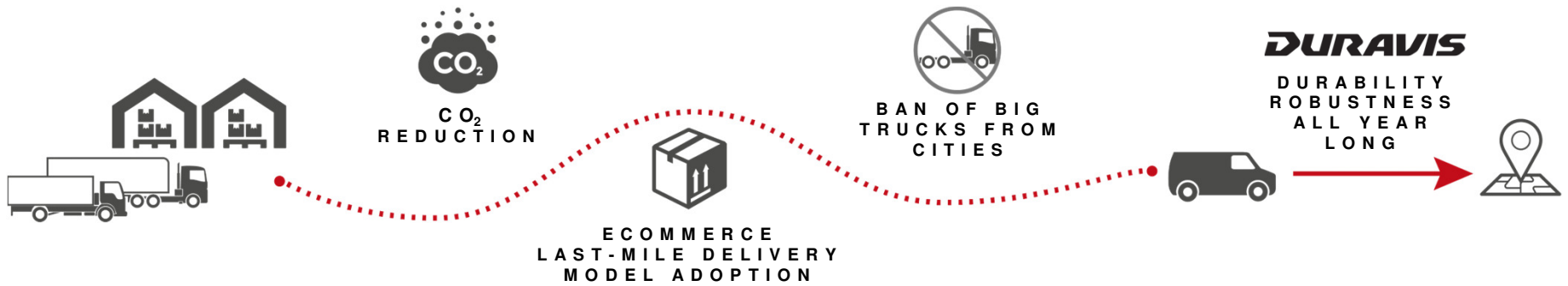
### **DURAVIS** **ALL SEASON**

- Current DURAVIS: strong **reputation for mileage & durability in CVR & TBR**
- Strong **correlation** of DURAVIS CVR benefits with DURAVIS commercial products
- DURAVIS will be the reference for connecting heavy load transportation with the **last mile delivery**



# DURAVIS ALL SEASON

DURAVIS, BRIDGESTONE'S REFERENCE FOR TOTAL FLEET APPROACH (VAN & HEAVY DUTY VEHICLES)



## DURAVIS ALL SEASON

VALUE PROPOSITION



### CONSUMER



FOR **PROFESSIONALS** THAT WANT TO BOOST THEIR BUSINESS BY INVESTING IN PREMIUM TYRES THAT HELP THEM MAXIMISE BUSINESS EFFICIENCY.

### JOURNEY



WHO WANT TO STAY IN CONTROL WITH THE **SAME TYRES YEAR-ROUND**. PROVIDING PEACE OF MIND IN DAILY CHALLENGING SITUATIONS IN **ALL WEATHER CONDITIONS**, WHILE MAXIMISING VEHICLE UTILISATION AND **REDUCING DOWNTIME**.

### BRAND



BRIDGESTONE **DURAVIS** KEEPS YOU GOING AS THE ROBUST AND DURABLE CONSTRUCTION ENABLES **GREAT WEAR PERFORMANCE** AND A VERSATILE DRIVING EXPERIENCE.

### TYRE



DURAVIS ALL SEASON ALLOWS YOU TO **MINIMIZE DOWNTIME PERIODS** AND **REDUCE OVERALL TOTAL COST** OF OWNERSHIP FOR YOUR VEHICLE OR FLEET; AND **KEEPS YOU GOING ALL YEAR ROUND**.

## DURAVIS ALL SEASON

USPS



### BEST-IN-CLASS WET GRIP INDEX

EU LABEL GRADE "A".



### WINTER READY, FOR ALL YEAR USAGE

CERTIFIED 3 PEAK MOUNTAIN SNOW FLAKE (3PMSF) AND MUD + SNOW MARKINGS TO ENSURE USAGE IN ALL WEATHER CONDITIONS.



### SIDEWALL PROTECTOR RIB

TO REDUCE DOWN-TIME PERIODS.





# DURAVIS ALL SEASON

## TECHNOLOGY FEATURES



- ① **High-volume slots in shoulder**  
(better water evacuation)



- ② **Reduced edge ingredient & void**  
Higher pattern stiffness vs a winter product for better wear performance

### New nano-selective compound mixing technology

Allows better silica dispersion in Nano Pro-tech™ compound with high silica content enhancing wet and snow performances.



- ③ **Directional Architecture**  
V-shape layout adopted  
(improved snow mobility)



- ④ **Optimized carcass construction**  
(regular footprint shape)



- Optimized contact pressure distribution**  
(maximum wet/snow grip/even worn profile)



- ⑤ **Sidewall Protector Rib**  
(to protect from curbs impacts)



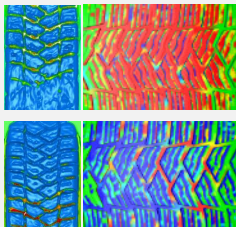
# DURAVIS ALL SEASON

ENHANCED SIMULATION



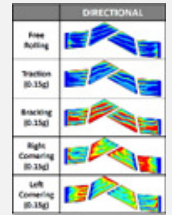
## SNOW

Lug geometry/angle, edge ingredient, voids optimization for snow performance (*Snow Braking and Traction simulations*)



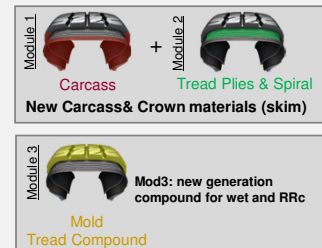
## WEAR

Pattern stiffness definition for wear energy optimization (*Wear Energy simulations*)



## RR

Construction and cavity optimization for RR improvement (*RRc simulations*)



# DURAVIS ALL SEASON

MARKET COVERAGE



## DURAVIS All Season CVR



### Line-up



23

### Market Coverage



88%\*

### HRDs

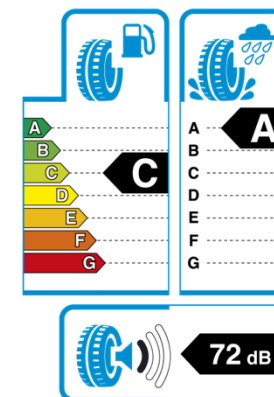


3

### 10PR



5



BS PRODUCT READY FOR EVERY TYPE OF VEHICLE AND LOAD WITH ENHANCED SAFETY.

\* Calculated on Summer Best Segment Market

\*\* Based on pilot size 205/65R 16C 107/105 T



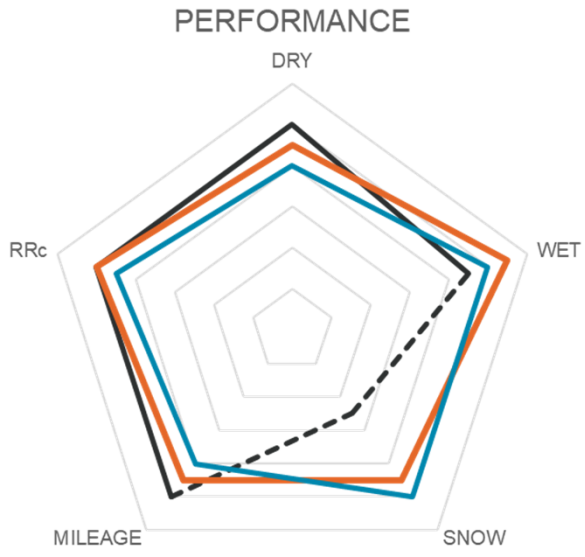
## DURAVIS ALL SEASON LINE-UP

| ZOLL | ART.-NR. | DIMENSION             | VEHICLE   |
|------|----------|-----------------------|---|
| 15"  | 20769    | 195/70 R15C 104/102R  | Ford Transit (2006), Hyundai H100 (2004), Chevrolet Lumina Van (1996)   |
|      | 20770    | 215/65 R15 C 104/102T | Citroën Jumpy (2006), Fiat Scudo (2006)                                 |
|      | 20771    | 215/70 R15 C 109/107S | Fiat Ducato (2006), Peugeot Boxer (2006), Citroën Jumper Kombi (2002)   |
|      | 20772    | 225/70 R15C 112/110S  | Citroën Jumper (2020), Mercedes Sprinter (2020), Peugeot Boxer (2019)   |
| 16"  | 20773    | 185/75 R16C 104/102R  | Ford Transit (2006)   |
|      | 20776    | 195/60 R16C 99/97H    | Daihatsu Luxio (2020), Fiat Doblo (2019)                                |
|      | 20774    | 195/65 R16C 104/102T  | Mercedes Marco Polo (2006), Nissan Primestar (2015), Opel Vivaro (2014) |
|      | 20775    | 195/75 R16C 107/105R  | VW Crafter (2006), Mercedes Sprinter (2006), Ford Transit (2006)        |
|      | 20777    | 205/65 R16C 107/105T  | Renault Traffic III (2014), VW T6 (2015), Ford Transit (2006)           |
|      | 20778    | 205/75 R16C 110/108R  | VW Crafter (2006), Mercedes Sprinter (2006), Peugeot Boxer (2002)       |
|      | 20768    | 205/75 R16C 113/111R  | VW Crafter (2017)   |

| ZOLL | ART.-NR. | DIMENSION            | VEHICLE   |
|------|----------|----------------------|---|
| 16"  | 20782    | 215/60 R16C 103/101T | Toyota Proace (2013), Citroën Jumpy (2006), Fiat Scudo (2006)               |
|      | 20780    | 215/65 R16C 109/107T | Ford Tourneo (2012), Ford Transit (2012), Citroën Jumpy (2016)              |
|      | 20781    | 215/65 R16C 106/104T | Renault Traffic III (2014), VW T6 (2015), Opel Vivaro III (2014)            |
|      | 20779    | 215/75 R16C 113/111R | Ford Transit (2006), Peugeot Boxer (2002), Citroën Jumper Kombi (2002)      |
|      | 20783    | 215/75 R16C 116/114R | Fiat Ducato (2006), Peugeot Boxer (2006), Mitsubishi Fuso Canter (2005)     |
|      | 20784    | 225/65 R16C 112/110R | Renault Master (2010), Iveco Daily VI (2014), Nissan NV400 (2011)           |
|      | 20785    | 225/75 R16C 121/120R | Citroën Jumper (2020), Mercedes Sprinter (2020), Mercedes e-Sprinter (2019) |
| 17"  | 20786    | 235/65 R16C 115/113R | Renault Master (2010), VW e-Crafter (2017), Ford Transit (2014)             |
|      | 20787    | 235/65 R16C 121/119R | VW Crafter (2017), Ford Transit (2016), Mercedes Sprinter (2019)            |
|      | 20789    | 215/60 R17C 109/107T | Renault Traffic III (2014), Opel Vivaro (2014), Nissan NV300 (2014)         |
|      | 20790    | 225/55 R17C 109/107H | Mercedes Marco Polo (2016), Citroën Space Tourer (2018)                     |
|      | 20767    | 235/60 R17C 117/115R | VW Crafter (2017), Mercedes Sprinter (2006)                                 |

# DURAVIS ALL SEASON

PRODUCT PORTFOLIO



— DURAVIS R660 — DURAVIS All Season — Blizzak W810  
Qualitative Performance Differentiation

**DURAVIS R660**



**DURAVIS ALL SEASON**



**BLIZZAK W810**





—  
Thank you  
Any Questions?

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*Solutions for your journey*



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