MICHELIN PILOT ROAD 4 SCOOTER

TWO RANGES FOR MAXI SCOOTERS

MICHELIN PILOT POWER 3 SCOOTER



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GIANT STRIDES FOR SCOOTER TYRES

THE MICHELIN PILOT ROAD 4 SCOOTER

THE MICHELIN PILOT POWER 3 SCOOTER

COMPREHENSIVE RANGES FOR ALL TYPES OF SCOOTER, USE AND ENGINE SIZE

MICHELIN TOTAL PERFORMANCE

1

4

5

THE MICHELIN GROUP IN NUMBERS

CONTE

GIANT STRIDES FOR SCOOTER TYRES

To meet the needs of scooter users in a fast-growing market that has more than doubled in size in Europe over the past eight years, Michelin is poised to launch two new tyre ranges during the first quarter of 2016: the MICHELIN Pilot Power 3 Scooter and MICHELIN Pilot Road 4 Scooter.

Derived directly from the MICHELIN Pilot Road 4 and MICHELIN Power 3 motorbike ranges, they benefit from the brand's vast expertise in this area and feature technologies never previously seen in the radial scooter tyre market.

These two ranges, which are intended for Maxi Scooters of 400cc and upwards that were originally fitted with radial tyres, complement one another depending upon the desired use.

The MICHELIN Pilot Road 4 Scooter will satisfy safety-conscious users in all weather conditions^{*} thanks to their 'full-depth' sipes.

Another very welcome quality is the tyre's excellent durability, courtesy of its silica-reinforced rubber. The exceptional grip levels offered by the MICHELIN Pilot Road 4 Scooter are consistent across a wide range of temperatures, from 0°C to more than 40°C, and on wet or dry roads.

The sharp-looking MICHELIN Pilot Power 3 Scooter is intended for scooter users accustomed to a sportier riding style and in search of a tyre that offers excellent manoeuvrability and grip on dry surfaces. It benefits from MICHELIN 2CT dual-compound technology which combines grip and durability.

* except snow and ice.

THE NEW RANGES IN NUMBERS

3 In years, the time spent developing the two new ranges. **10** As an average percentage, the annual market share growth of the radial scooter tyre in Europe between 2007 and 2015.

120 The number of tests to which the MICHELIN Pilot Road 4 Scooter and MICHELIN Pilot Power 3 Scooter tyres were subjected during their development.

200 000 In kilometres, the distance covered during endurance bench testing.

THE MICHELIN PILOT ROAD 4 SCOOTER TYRE



4 In metres, the braking improvement on a wet surface **.

10 As a percentage, the increase in durability**.

40 In degrees centigrade, the operating temperature range.

THE MICHELIN PILOT POWER 3 SCOOTER TYRE

2 The difference (in percentage) between the sea-to-land ratios of the MICHELIN Pilot Road 4 Scooter and the MICHELIN Pilot Power 3 Scooter.

2 The number of tread-less zones (shoulders) for enhanced grip on dry roads.

10 As a percentage, the increase in durability**.

** Compared with the MICHELIN Power Pure SC.

THE MICHELIN PILOT ROAD 4 SCOOTER AND THE MICHELIN PILOT POWER 3 SCOOTER



THE MICHELIN PILOT ROAD 4 SCOOTER

The characteristics of the new **MICHELIN Pilot Road 4 Scooter tyre** – intended for scooters of 400cc and above – deliver a blend of enhanced safety and greater confidence in all situations and over longer distances.

The technological challenge was to make the tyre as safe as it can possibly be in all weathers so as to tackle the wide variety of conditions encountered when riding around town or out on the open road, regardless of the user's riding style.

THE MICHELIN PILOT ROAD 4 SCOOTER TYRE SUCCESSFULLY BLENDS ALL OF THESE QUALITIES.

Its versatility can be seen in the following areas

• Outstanding grip on all types of road, particularly in the rain and when temperatures are low but also on painted road markings and pedestrian crossings, which scooter riders invariably dread. These exceptional grip levels translate into braking distances that are four metres shorter on wet roads^{*}.

• **Durability increased by 10 percent** compared to the tyre's predecessors, the MICHELIN Power Pure Scooter and the MICHELIN Pilot Sport Scooter.

• A wide range of operating temperatures spanning more than 40°C, stretching from below 0°C on dry roads to plus 40°C.

• First-rate manoeuvrability, stability and comfort.

*Internal test conducted at Michelin's facilities at Ladoux over a distance of approximately 20 metres. The MICHELIN Pilot Road 4 Scooter was tested alongside its predecessor, the MICHELIN Power Pure Scooter.

To attain this high standard of performance, the MICHELIN Pilot Road 4 Scooter incorporates the following key technologies

• Both at the front and the rear, **this new tyre** employs the **MICHELIN 2CT dual-compound technology. This consists of combining** soft rubber compounds for the shoulders with a more resistant compound for the central part of the tread in order to maximise both durability and grip.

• This MICHELIN 2CT technology, working in tandem with MICHELIN XST (X-Sipe Technology), ensures regular wear of the tyre, even when subjected to severe stresses. This is the secret behind the durability of the tyre and its sustained level of performance throughout its lifespan.





• **MICHELIN XST technology,** characterised by the particularly innovative design of the tread, which incorporates sipes and reservoirs. This makes it possible to break up the film of surface water, improve the tyre's water clearance capacity and achieve grip levels on wet surfaces that are virtually the same as those experienced on dry roads.

• **MICHELIN XST+ technology** comprises chamfered sipe-edges to improve braking capacity and help to prevent abnormal wear in extreme conditions.



• A variable sea-to-land grooving ratio, which guarantees optimum grip whatever the scooter's angle of lean.



Central zone (C):The priorities are grip and braking performance on wet roads.

Intermediate zones (I): Sea-to-land ratio (grooving ratio, not including sipes) raised slightly to 14.3%, placing the emphasis on grip on wet roads (moderate angles of lean). Higher sea-to-land ratio than the MICHELIN Power Pure SC.

Shoulders (5): Sea-to-land ratio (grooving ratio, not including sipes) slightly raised to 10.5% compared with the Power Pure SC (maximum angles of lean).



Central zone (C): The priorities are traction on wet roads and long tread life.

Intermediate zones (I): Sea-to-land ratio (grooving ratio, not including sipes) slightly raised to 16.4% compared with the Power Pure SC, placing the emphasis on grip on wet roads (moderate angles of lean).

Shoulders (S): Sea-to-land ratio (grooving ratio, not including sipes) slightly raised to 7.2% compared with the Power Pure SC (maximum angles of lean).



• A unique new assembly of functional polymers and silica yields significant progress in both wet grip levels and durability (Functional Polymer SBR – Styrene Butadiene Rubber technology).

• The casing plies, produced from HMLS (High Modulus Low Shrinkage) polyester allow the combination of two properties capable of meeting contradictory requirements: heightened stiffness and resistance to deliver exceptional handling allied to flexibility in compression for better absorption over bumps and under braking. The extremely rigid, aramid-based zero-degree belt holds the casing in place when subjected to centrifugal forces and guarantees consistent performance at all speeds.

The aramid fibres used in MICHELIN tyres endow them with the same stiffness as steel at only a fifth of the weight.

THE MICHELIN PILOT ROAD 4 SCOOTER RANGE

Sizes	Position	Launch EUR	Launch out. EUR
120/70 R 14 M/C 55H PILOT ROAD 4 SCOOTER F TL	Front	Early 2017	Early 2017
160/60 R 14 M/C 65H PILOT ROAD 4 SCOOTER R TL	Rear	Early 2017	Early 2017
120/70 R 15 M/C 56H PILOT ROAD 4 SCOOTER F TL	Front	02/2016	04/2016
160/60 R 15 M/C 67H PILOT ROAD 4 SCOOTER R TL	Rear	02/2016	04/2016

THE MICHELIN PILOT ROAD 4 SCOOTER AND THE MICHELIN PILOT POWER 3 SCOOTER



The riding enjoyment generated by the **MICHELIN Power 3 Scooter tyre** can be attributed to its phenomenal grip, resulting in unparalleled levels of manœuvrability.

When subjected to an aggressive or sporty riding style, it is formidably effective on dry roads and offers an astonishing level of performance. On wet roads, the combination of its profile and the compound it uses instils it with remarkable grip and braking ability.

Boasting performance and a sporty design, the MICHELIN Pilot Power 3 Scooter blends all the ingredients required for uncompromised riding pleasure

• Exceptional grip that yields a one-second improvement in lap times* and handling qualities that are perfectly suited to a purposely sporty ride.

• **Excellent road holding stability,** which truly comes into its own during periods of hard acceleration.

• Braking distances that are three metres shorter on wet roads, plus 10 per cent greater durability compared to its predecessor, the MICHELIN Power Pure SC Radial.



* 1'05" in seconds, the efficiency gain per lap on a wet surface compared with its predecessor.

In order to achieve this increased level of performance, the MICHELIN Pilot Power 3 Scooter makes full use of a wide range of advanced technologies

• MICHELIN 2CT dual-compound technology, which can be found in the new MICHELIN Power 3 Scooter, increases the level of cornering grip compared to its predecessor, whilst at the same time improving its durability by increasing the ratio of hard-compound rubber used for the tread of the rear tyre (the more resistant central part of the tread accounts for 60 per cent of the rubber as against 50 per cent previously).



• A unique new assembly of functional polymers and silica yields significant progress in both grip levels on wet roads and durability (Functional Polymer SBR – Styrene Butadiene Rubber technology).

• The employment of an innovative tread pattern that guarantees optimal wear – allied to a sea-to-land ratio that has increased from 13 per cent to 14.5 per cent compared to its predecessor – improves grip on wet surfaces, so that it is at the same level as dry-weather grip.

• A tread pattern adapted to different dynamic demands. The tread pattern has been optimised so as to manage braking stresses at the front and acceleration stresses at the rear. At a lean angle of 30 degrees, specific sipes ensure optimum grip in the wet. Finally, the shoulders are smooth so as to provide excellent grip at high angles of lean on dry roads.



• The casing layers, produced from HMLS (High Modulus Low Shrinkage) polyester allow the combination of two properties capable of meeting contradictory requirements: heightened stiffness and resistance to deliver exceptional handling allied to flexibility in compression for better absorption over bumps and under braking. The extremely rigid, aramid-based zero-degree belt holds the casing in place against the centrifugal force and guarantees consistent performance at all speeds.

The aramid fibres used in MICHELIN tyres endow them with the same stiffness as steel at only a fifth of the weight.



THE MICHELIN PILOT POWER 3 SCOOTER RANGE

Sizes	Position	Launch EUR	Launch out. EUR
120/70 R 15 M/C 56H PILOT POWER 3 SCOOTER F TL	Front	February 2016	April 2016
160/60 R 15 M/C 67H PILOT POWER 3 SCOOTER R TL	Rear	February 2016	April 2016

A COMPREHENSIVE SELECTION OF SCOOTER TYRES FOR ALL TYPES OF USE AND ENGINE SIZE



MICHELIN TOTAL PERFORMANCE

In introducing its new **MICHELIN Pilot Road 4 Scooter** and **MICHELIN Power 3 Scooter tyres** to the market at the beginning of 2016, the Group is reaffirming its commitment to users of Maxiscooters throughout the world.

The characteristics of these new ranges allow them to simultaneously deliver enhanced safety, greater confidence and extra enjoyment in all conditions and situations and over longer distances.

By extending their durability by 10 percent, reducing braking distances on wet surfaces and offering even more efficiency than their predecessors without sacrificing any of the fun factor, the **MICHELIN Pilot Road 4 Scooter** and **MICHELIN Power 3 Scooter tyres** are the fruit of the MICHELIN Total Performance strategy.

This entails consistently and collectively improving all the factors that contribute to tyre performance, however varied their respective roles may be.

The MICHELIN Pilot Road 4 Scooter and **MICHELIN Power 3 Scooter tyres** combine two cuttingedge technologies - MICHELIN 2CT and MICHELIN XST+ - as well as new, all-silica rubber compounds.

More than simply enhancing efficiency and performance, the objective was to blend qualities that are theoretically irreconcilable. In order to bring them together harmoniously in the same tyre, it was necessary to make use of advanced technologies, rigorous testing and specially adapted manufacturing processes.

This challenge was made possible by Michelin's unique expertise in the field and an investment of €656 million into Research & Development.

In evidence of this, for tyres intended for two-wheeled vehicles alone, Michelin's developers produce 450 prototypes and dedicate 12,000 hours to calculation work every year.



MICHELIN Total Performance



Founded 1889

Factories 68 production plants in 17 countries

Staff 112,300 employees worldwide

Research and development

More than **6,600** R&D staff working out of **25** facilities on three continents (North America, Europe and Asia)

R&D budget (2014)

€656 million

Annual production

178 million tyres, plus more than **13 million** maps and guides sold in **170 countries**, and **970 million** itineraries computed by ViaMichelin.

Total revenue (2014) €19.55 billion

A broad portfolio of brands covering every sector of the market: MICHELIN, BFGOODRICH, KLEBER, UNIROYAL¹, WARRIOR, KORMORAN, RIKEN, TAURUS, TIGAR, PNEU LAURENT, RECAMIC, MICHELIN REMIX.

Uniroyal 1: except in Europe.

MORE THAN 3,500 POINTS OF SALE (GROUP-OWNED AND FRANCHISES) IN 29 COUNTRIES

The mission of tyre industry leader **Michelin** is to play an active part in the sustainable transport of people and goods. To achieve this goal, the Group manufactures, distributes and markets tyres for all types of vehicle. Michelin also proposes innovative digital services, including vehicle fleet management and mobility aids. It publishes travel, restaurant and hotel guides, as well as maps and road atlases. Its headquarters are in Clermont-Ferrand, France, and the group is active in 170 countries with a total staff of 112,300 worldwide. It has 68 manufacturing facilities in 17 countries, as well as research and development technology centres in Europe, North America and Asia. (www.michelin.com)