

Media information

MICHELIN *PiLOT Road³*



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MICHELIN Pilot Road 3 paves the way for a new era in the world of Sport Touring Radial tires

The new MICHELIN Pilot Road 3, which targets the rapidly expanding Sport Touring Radial tire market, combines unprecedented performance with the marketplace's best-balanced overall performance package. In terms of both the grip it provides on wet roads and the consistency of the performance it delivers over time, the newcomer even surpasses its predecessor, the MICHELIN Pilot Road 2, which was launched in 2007 and which went on to be acclaimed as the segment's benchmark.

The MICHELIN Pilot Road 3's development fits perfectly with Michelin's strategy with regard to innovation and was principally geared to ensuring enhanced safety for motorcyclists.

To this end, grip plays a major role. As the sole point of contact between a vehicle and the ground, tires are a part of the solution, in dry, wet and damp conditions alike, and **the new MICHELIN Pilot Road 3 shortens stopping distances on wet roads by an average 2.5 metres *, which is equivalent to the width of a pedestrian crossing. The gain is even as high as five metres in conditions where grip is particularly at a premium. In addition to marking a real breakthrough with regard to enhanced grip and safety,** the overall package provided by the new MICHELIN Pilot Road 3 is equally uncompromising when it comes to ensuring long tire life and the consistent delivery of performance over time.

This progress was made possible thanks to two major breakthroughs

The first of these breakthroughs is the incorporation of an innovative technology fine-tuned by Michelin – MICHELIN XST (X Sipe Technology) – which features a revolutionary tread pattern (the part in contact with the road). MICHELIN XST is based

on a combination of sipes and "wells" which enable the tire to cut through the film of water and increase its water clearance capacity to obtain a level of grip similar to that of a dry road.

The second breakthrough is the latest-generation MICHELIN 2CT (Two-Compound Technology), an evolution which maximises the life expectancy of the MICHELIN Pilot Road 3. In a nutshell, this technology consists of a combination of a softer rubber for the shoulders and a more resistant compound for the central part of the tread.

Together, MICHELIN 2CT and MICHELIN XST ensure more even tire wear, even when it is subjected to intensive use. And even wear is a prerequisite for longer tire life and durable, consistent delivery of performance throughout the product's working life.

The overall performance package of the MICHELIN Pilot Road 3 ensures an unprecedented combination of outstanding grip, even in worst-case conditions (wet, damp, slippery roads), and durability.

This combination is the fruit of the MICHELIN Group's significant Research & Development investment (almost €500 million invested in total annually in the Centre de Technologies by the MICHELIN Group), as well as of the MICHELIN Group's strategic choice not to sacrifice one performance parameter in favour for another, whatever the area concerned. ●

* Back-to-back stopping distance tests (on wet roads, from 50kph) comparing the MICHELIN Pilot Road 3 with the MICHELIN Pilot Road 2. Tests carried out by DEKRA Test Center in January 2011 (sizes tested: 120/70 ZR 17 and 190/50 ZR 17).



MICHELIN Pilot Road 3: enhanced grip on wet roads and longer tire life for the best overall package

Stopping distances an average 2.5 metres shorter on wet roads

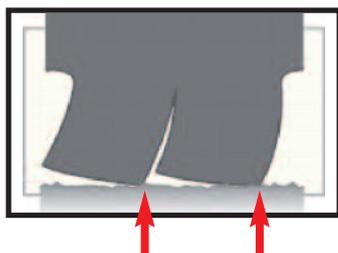
MICHELIN XST (X Sipe Technology) was developed by the Centre de Technologies and stands out as a major, revolutionary breakthrough. It ensures an improved safety margin in heavy rain, on damp road surfaces and in other conditions where grip is at a premium, such as puddles, paving stones, damp portions under trees, painted road markings, etc. On wet roads, for example, stopping distances have been reduced by an average 2.5 metres, and this figure can even reach 5 metres in more extreme conditions.*



The clearance of water by the tread pattern and pressure on the contact patch are insufficient to completely eliminate the presence of water between the tire and the road surface.

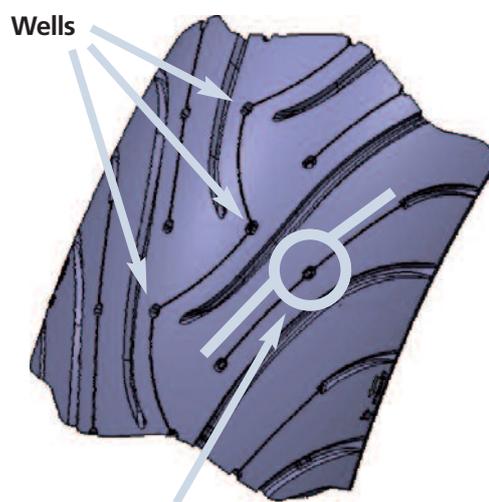
The principal of MICHELIN XST (X Sipe Technology) acts on the residual film of water, and this is where the innovative sipes featured on the new MICHELIN Pilot Road 3 come into their own.

To begin with, the additional pressure exerted by **the sipe edges cuts through the film of water which is then cleared either side of the tire** via the pattern's wide grooves.



Sipe edges cut through the film of water

- To optimise the work of the sipes, "well"-like recesses have been incorporated into the pattern to enhance the tire's water clearance capacity and to **improve the efficiency of both the sipes and the "blade" effect they produce.**



The incorporation of "wells" forms two small sipes instead of a single big one (on a rounded surface, it is effectively preferable to have two small "blades" instead of a single big one).



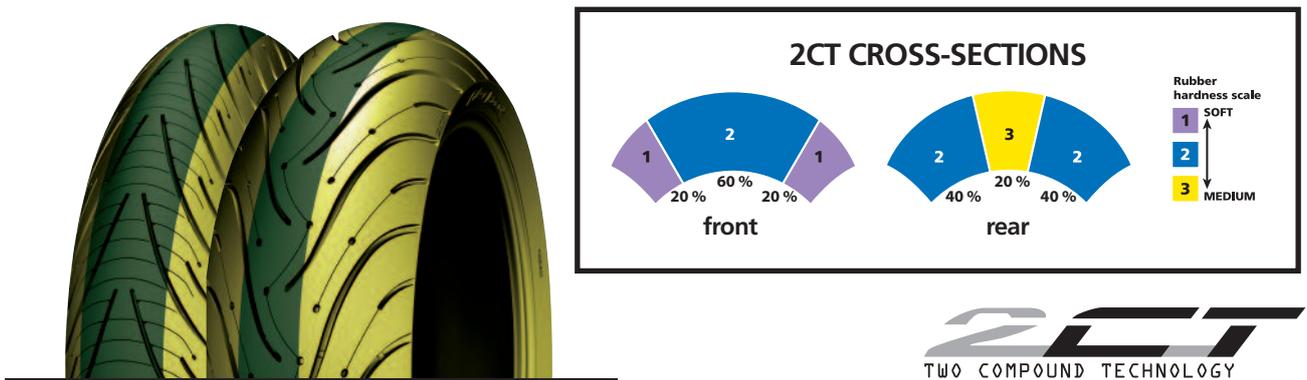
** Back-to-back stopping distance tests (on wet roads, from 50kph) comparing the MICHELIN Pilot Road 3 with the MICHELIN Pilot Road 2. Tests carried out by DEKRA Test Center in January 2011 (sizes tested: 120/70 ZR 17 and 190/50 ZR 17).*

Longer tire life

Thanks to MICHELIN 2CT, the MICHELIN Pilot Road 3 benefits from the latest breakthroughs in the field of two-compound technology.

To achieve the best grip possible, the compounds selected for the tire have evolved to provide enhanced grip on the shoulders (thanks to the use of softer compounds) and to maximise tire life (thanks to a more resistant compound for the central part of the tread).

Tests carried out in 2010 by the independent body DEKRA Test Center using identical motorcycles over a 6,000km itinerary covering different types of surface (circuit and ordinary roads) revealed that the new MICHELIN Pilot Road 3 outperformed its predecessor in terms of tire life. It consequently stands out as the new, absolute benchmark, since the MICHELIN Pilot Road 2 was the champion in its class in 2008/2009**.

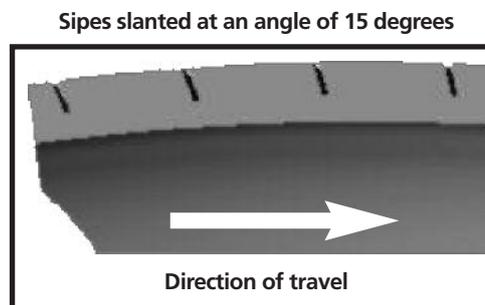


**Test of grip on wet roads and tire life of the MICHELIN Pilot Road 2 compared with rival tires carried out by DEKRA Test Center in 2008 and 2009 (sizes: 120/70ZR17 and 180/55ZR17).

Even wear and consistent delivery of performance over time

The pattern of the MICHELIN Pilot Road 3, which is covered by three patents, favours even wear.

The "full depth" sipes ensure lasting performance throughout the life of the tire. The fact that they are slanted at an angle of 15 degrees prevents uneven wear.



A comprehensive family of products for a rapidly growing market

The Sport Touring Radial tire market has expanded exponentially in recent years. **Between 2004 and 2010, it increased by 31 percent in Europe.** This trend is expected to continue, with forecasts for the current year estimating a leap of about seven percent.

Last year, in France alone, the segment enjoyed sales of more than 280,000 tires, which is practically a third of the motorcycle market. In 2011, the figure of 300,000 units promises to be largely exceeded due to a growing demand for this type of equipment, which is itself closely linked to the premium touring-style bike market.

Available sizes

Following its availability in the most frequently-demanded sizes at the time of its launch at the beginning of 2011, the MICHELIN Pilot Road 3 catalogue will be progressively extended between now and next August with a view to providing the most comprehensive line-up possible. The MICHELIN Pilot Road 3 will also be available in trail bike sizes.

FRONT

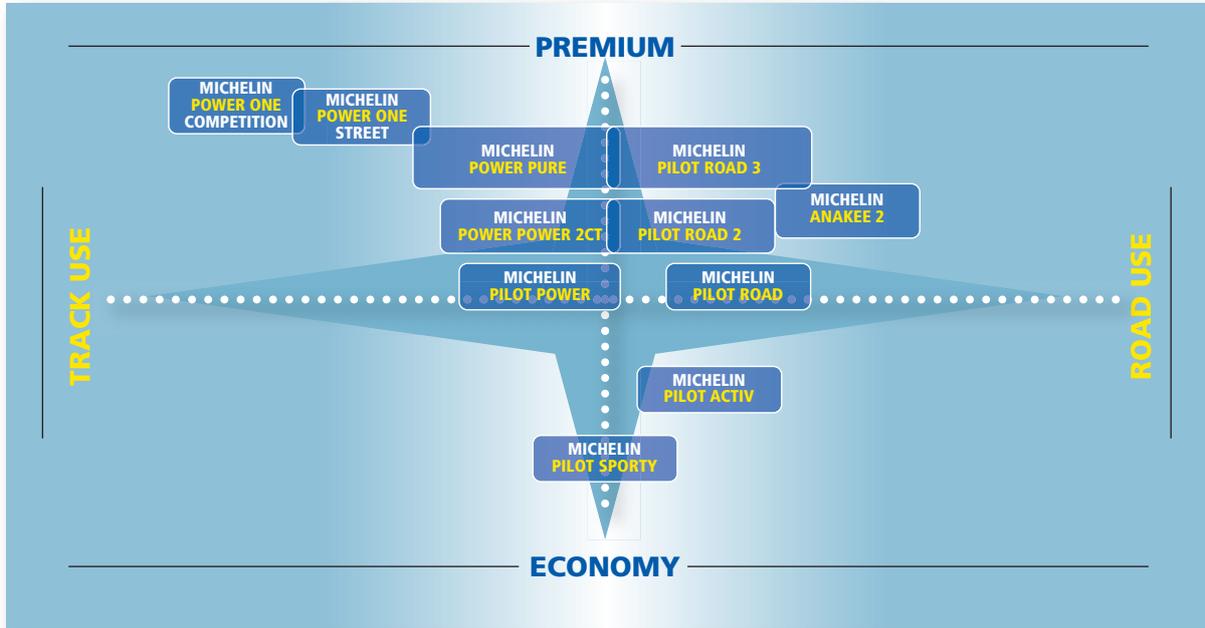
110/70 ZR 17 (54 W)
110/80 ZR 18 (58 W)
120/60 ZR 17 (55 W)
120/70 ZR 17 (58 W)
120/70 ZR 18 (59 W)
110/80 R 19 59 V Trail

REAR

150/70 ZR 17 (69 W)
160/60 ZR 17 (69 W)
160/60 ZR 18 (70 W)
170/60 ZR 17 (72 W)
180/55 ZR 17 (73 W)
190/50 ZR 17 (73 W)
190/55 ZR 17 (75 W)
150/70 R 17 69 V Trail



A continually revised line-up to cover all the market's needs



HYPERSPORT (CIRCUIT)	MICHELIN Power One Competition	MICHELIN Power One Street	
SPORT PREMIUM	MICHELIN Power Pure	MICHELIN Pilot Power 2CT	MICHELIN Pilot Power
SPORT TOURING RADIAL	MICHELIN Pilot Road 3	MICHELIN Pilot Road 2	MICHELIN Pilot Road
SPORT TOURING BIAS	MICHELIN Pilot Activ		
TRAIL	MICHELIN Anakee 2		



Tires, two motorcycle touring guides, a bespoke website and a single philosophy: a better way to travel

The activities of the Michelin Group extend much further than the long list of technological revolutions for which it has been responsible in the world of tires.

In 1900, there were fewer than 3,000 motorists in France. Travelling was at times an adventure, yet the Michelin brothers believed firmly in the future of the automobile. To assist its development – and at the same time that of the Michelin Group they had founded – they decided to provide motorists with a document aimed at facilitating their journeys. The celebrated Michelin Guide – a small practical guide designed to help mobility – was born.

The underlying principle behind the guide's publication hasn't shifted over the decades and today's forms part of the DNA of Michelin which has grown to become a worldwide brand. Indeed, the mission of the Group today is expressed by the brand signature, "A better way forward".

A bespoke website for bikers:

The Michelin Group's bespoke website for motorcyclists (www.michelinpilotroad3.com) sets out to contribute to improving the movement of people and goods across the planet. This website is available in six languages (German, English, Spanish, French, Italian and Japanese) and provides internet users with:

- Downloadable roadmaps of the new MICHELIN touring guides ("90 Motorcycle Journeys in France / 2011" and "Motorcycle Touring in the Alps – Europe / 2011"). Visitors can leave comments.
- Tire information, including educational films and technical data.



"Motorcycle Touring in the Alps – Europe": The only European motorcycle touring guide

The publication of the new "Motorcycle Touring in the Alps – Europe" guide (available in three languages: French, Italian and Dutch) has seen Michelin innovate once again, since it is alone in proposing a European motorcycle touring guide.

The Alps are a natural draw for bikers, not only for the variety and interest of their mountain roads and scenery, but also for the riding pleasure they permit. This guide suggests circuits of varying durations, from one week to 10 days or even two weeks, and itineraries totalling almost 4,000km. The guide divides the Alps into 23 routes, taking in five countries: France, Switzerland, Austria, Germany and Italy. Itineraries climb more than 40 mountain passes, including some at altitudes of 3,000 metres.

Michelin's "Motorcycle Touring in the Alps – Europe" includes appropriate information for motorcyclists:

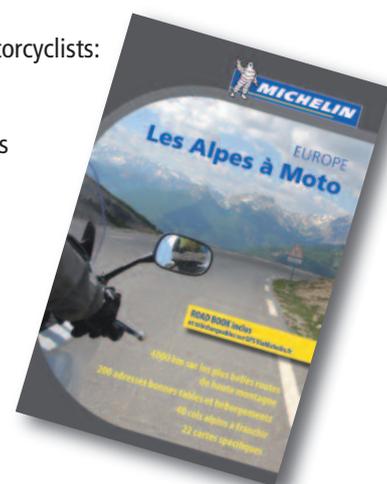
- Advice on travelling in mountainous regions
- A folding overall map showing all the different sections glued inside the guide's back cover
- Overnight halts selected for their cultural and touristic interest, plus a selection of restaurants
- Maps indicating sections where riding conditions can be difficult, vantage points for the best vistas, plus accommodation, restaurants and tourist attractions.

Specific roadbooks can be found and downloaded in the form of PDF files for TRB or GPX-format satnav systems at www.ViaMichelin.fr

224 pages

Retail price: €16

Publication date: February 1, 2011



"90 Motorcycle Journeys" – an improved version of Michelin's guide for motorcyclists

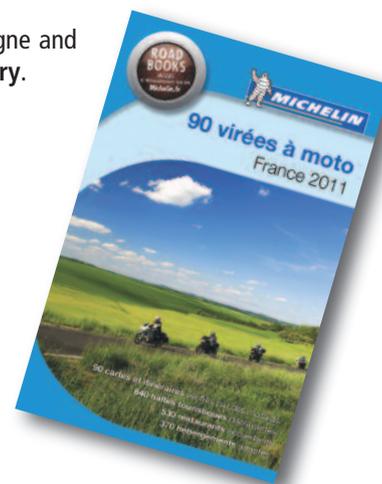
28,350km of roads selected for motorcycling enjoyment, their touristic interest and pillion rider comfort. Features **90 itineraries** in France tested by more than 30 motorcycle touring enthusiasts.

The 2011 edition features five new itineraries in France's Landes, Bordeaux, Sologne, Bourgogne and Greater Paris regions: **1,478 additional kilometres to discover even more splendid scenery.**

608 pages.

Retail price: €16

Date of publication: February 1, 2011



All the itineraries have been updated and are downloadable in PDF form or for satnav systems in TRB and GPX formats at viamichelin.fr

Annexe 1 :

The Michelin Group – Landmark dates

Michelin has been contributing its knowhow and taste for innovation to the mobility of motorists worldwide for more than 100 years.

- 1889: Michelin et Cie** founded
- 1891:** the first patents for removable, repairable tires registered
- 1895:** Michelin introduces the Eclair – the first car to drive on pneumatic tires
- 1898:** birth of the Michelin Man, otherwise known as **Bibendum**
- 1900:** publication of the first **Michelin Guide**
- 1905:** Michelin's studded 'soled' tires improve grip and strength
- 1910:** publication of the first 1:200,000 scale **Michelin roadmap**
- 1913:** Michelin invents the **removable steel wheel**
- 1923:** the first **low-pressure touring tire** (2.5 bar)
- 1926:** Michelin publishes its first Green Guide travel book
- 1930:** Michelin patents the first built-in tube tire
- 1938:** Michelin launches the 'Metalic', the first heavy goods vehicle tire to feature a steel casing
- 1946:** invention of the **radial ply tire**
- 1959:** Michelin launches the first radial tire for earthmoving vehicles
- 1979:** Michelin's radial technology wins the Formula 1 World Championship
- 1981:** introduction of the MICHELIN X Air, the world's first radial aviation tire
- 1989:** introduction of '3615 Michelin', the first journey planning service to appear on France's Minitel system, a predecessor of today's internet
- 1992:** launch of the **first low fuel consumption MICHELIN ENERGY™** tire
- 1993:** Michelin invents a new tire manufacturing process, known as 'C3M'
- 1995:** the USA's Space Shuttle lands on Michelin tires
- 1996:** Michelin invents the vertically-anchored tire (PAX System)
- 1998:** the inaugural **Challenge Bibendum Michelin** – the first worldwide competition for clean cars – is organised
- 1998:** Bibendum celebrates its **centenary**
- 2000:** Bibendum elected Best Ever Logo by an international panel of experts
- 2001:** Michelin introduces the world's biggest earthmoving tire
- 2003:** Michelin launches its own line of automobile accessories
- 2004:** the Group adopts a new corporate slogan: '**Michelin, a better way forward**'
- 2004:** launch of MICHELIN XeoBib, the first constant low-pressure agricultural tire
- 2005:** Michelin tires are chosen for the new A-380 Airbus.
Launch of the MICHELIN Power Race motorcycle tire, the first dual-compound tire to be homologated for road use
- 2006:** Michelin revolutionises the world of truck tires with the introduction of 'MICHELIN Durable Technologies'
- 2007:** Michelin launches the **MICHELIN ENERGY™ Saver** tire which permits a fuel saving of almost 0.2 litres/100km, equivalent to a CO2 emissions saving of 4g/km
- 2008:** Michelin introduces its MICHELIN X ENERGY™ SAVERGREEN truck tire
- 2009:** the 100th anniversary of the **MICHELIN Guide to France**
- 2010:** the **MICHELIN Pilot Sport 3** and the **MICHELIN ALPIN A4** become available for the replacement market
- 2010:** the **10th MICHELIN Challenge Bibendum** organised in Rio de Janeiro, Brazil
- 2010:** launch of the world's fastest tire, **MICHELIN Super Sport**
- 2011:** launch of the **MICHELIN Pilot Road 3**

Annexe 2 : Motorcycle Tire Innovations – Landmark dates

Michelin's philosophy is to enable as many motorcyclists as possible to profit from its innovations and share all the benefits they can bring in terms of performance, safety and riding enjoyment. Many of Michelin's innovations have revolutionised the world of motorcycle tires to stand out as benchmarks.

- **1977 – "Semi-slick" tread patterns:**

Following a sharp rise in the power output of motorbikes, Michelin focused its research on the tread of its tires, totally suppressing the notion of pattern. The solution was a revolution in its day!

Slick tires were first seen in Grand Prix racing in 1977, and allowed Barry Sheene (Suzuki) to win that year's 500cc world title.

- In 2004, the **MICHELIN Pilot Power** started its career as the least-sculpted hypersport street tire.

- **1984 – Radial technology:**

Michelin chose the arena of Grand Prix racing to test its first motorcycle radial tires which soon emerged as the norm for the discipline.

- In 1987, thanks to its extensive experience of racing, Michelin marketed the first radial tire for production bikes: the **MICHELIN A59X and M59X**.

Radial technology brought a decisive benefit in terms of strength and stability at high speeds, as well as consistent performance over time, enhanced ride comfort and resistance to wear.

- **1992 - Silica:**

In the early 1990s, Michelin raced all-silica reinforced compounds which resulted from fundamental research programmes carried out by the Michelin Group. This innovation marked the beginning of a new period of supremacy for Michelin tires, notably in races held in wet conditions. The incorporation of silica to the compounds of its motorcycle tires allowed Michelin to establish new standards of grip on wet surfaces.

- In 1999, the **MICHELIN Pilot Sport** became the first road tire to benefit from this innovation.

- **1994 – The first two-compound MotoGP 500 tire**

MICHELIN 2CT (two-compound technology) allowed Michelin to further widen the gap over its rivals and maintain its superiority in motorcycle racing's premier class.

- In 2005, for the first time, a hypersport tire ran different compounds either side of the central part of the tread. The **MICHELIN Power Race** was the first road-approved racing tire to qualify for the two-compound appellation.

- In 2006, Michelin went further still down the two-compound technology path. Although this innovation was derived from the world of racing, it was not restricted to circuit use. **MICHELIN Pilot Power 2CT** was designed for sport bikes used chiefly on roads.

- **2009 - AST (Asymmetric Technology)**

This technology was first employed in MotoGP 500 racing in 1994. The combination of AST (Asymmetric Technology) and 3CT (Three Compound Technology) enables different compounds to be used for the left- and right-hand sides of a tire, along with a more resistant compound for the centre of the tread band. Accordingly, the side of the tire which is subjected to the greatest constraints during a race uses a harder, more durable compound as a function of the circuit's profile and the characteristics of the race.

- In 2009, AST allowed the 16.5-inch **MICHELIN Power One Competition** to become the first tire of its type to match the specificities of each track layout by taking into account the different constraints to which each side of the tire was subjected (e.g. more right- or left-hand turns).

Annexe 3 : The Michelin Group – Key figures

Founded:	1889
Production facilities:	70 factories in 18 countries
Number of employees:	111,000 worldwide
Technology Centres:	More than 6,000 research staff working on three continents: North America, Europe and Asia
Annual R&D budget:	More than €500 million
Annual production:	More than 175 million tires produced, plus more than 10 million maps and guides marketed in more than 170 countries, plus 875 million journeys calculated by ViaMichelin.
Net sales (2010):	€17.9 billion

A broad portfolio of brands to cover all the market's different segments: Michelin, BFGoodrich, Kleber, Uniroyal, Riken, Taurus, Kormoran, Warrior, Pneu Laurent, Recamic, Michelin Remix, Euromaster, TCI Tire Centers, Euromaster, TyrePlus.

To find out more about the history of the Michelin Group, visit L'Aventure Michelin.
News and practical information can be found at www.laventuremichelin.com

