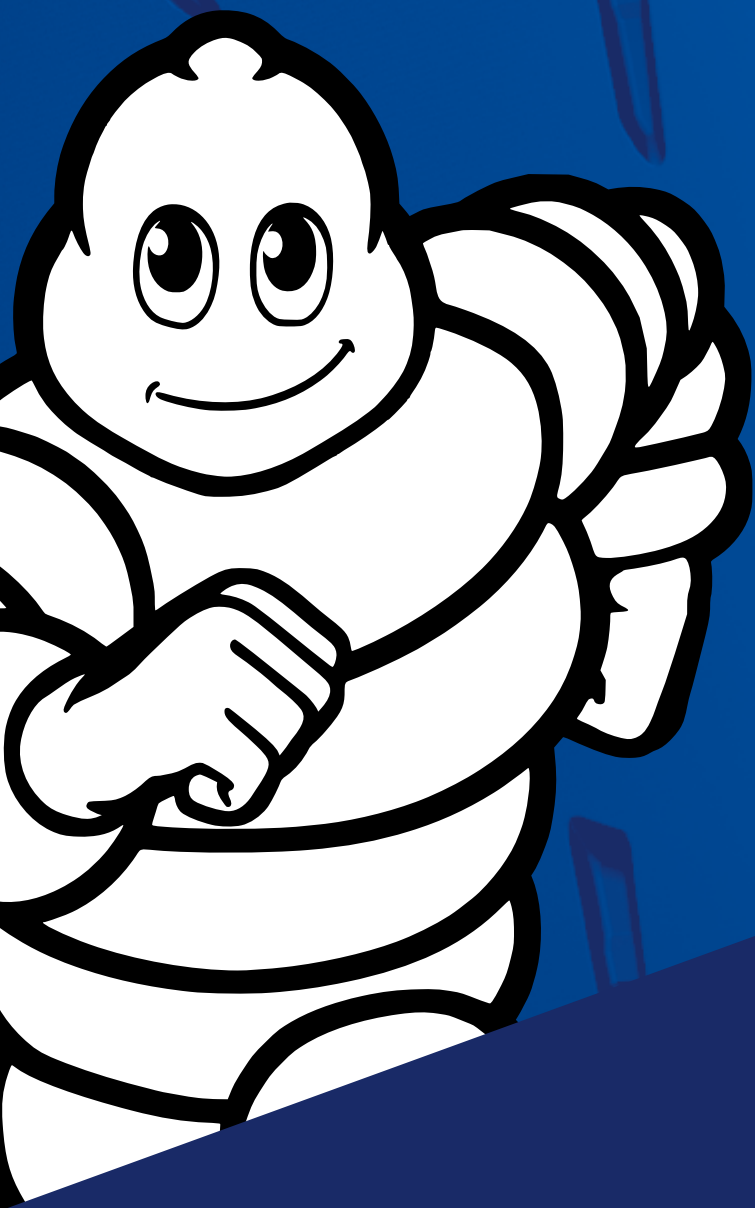


MOTORCYCLE COMPETITION



2009



WELCOME TO THE MICHELIN COMPETITION WORLD

Michelin's mission has always been to contribute to better mobility of people and property. In order to respond to the doubling of the number of vehicles over the next thirty years, Michelin is innovating in favour of safer, sustainable and environmentally-friendly mobility.

**COMPETITION HAS BEEN PART OF
THE MICHELIN DNA AND PHILOSOPHY
FROM THE VERY FIRST DAY.**

In order to assist in these changes, Michelin has a Technologies Centre, with 6000 researchers, and also an extreme laboratory to test the solutions of tomorrow with its partners on circuits and grounds the world over: competition!

Michelin is the only brand that has developed so many prize-winning Competition technologies for over 100 years. This is Michelin's prestigious and authentic heritage, and is also the expression of a passion shared within the company.

Michelin pulls out all the stops to be present in competition that make sense to the mobility of tomorrow and assists its partners to victory by demonstrating the extraordinary quality and performance of its products while developing innovative technologies that benefit consumers.

These commitments are carried through global or national trials, at both professional and amateur level. They aim to strengthen the renown of the Michelin brand in mature countries and introduce it to its new markets.

For Michelin, competition is also a better way forward.

8
MICHELIN
POWER SLICK EVO

9
MICHELIN
POWER CUP EVO

10
MICHELIN
POWER PERFORMANCE

12
MICHELIN
POWER RAIN

13
MICHELIN
POWER SUPERMOTO

14
TECHNICAL
data

16
SAFETY
advice

18
Recognizing
DAMAGE



READING A TIRE

EX.: **120/70 R 17**

120 : Tread width (in mm)

70 : Ratio between the tyre height and its width
(as a %)

17 : Rim diameter (in inches)

R : Radial casing tyre

TL : Tubeless tyre (without inner tube)

ADVICE FROM THE MICHELIN TECHNICIAN

- 1. Check the condition of your rims** before fitting the tyre.
- 2. Check the wear level on your tyres** (using the indicator on the tread) if the motorcycle is fitted with previously-used tyres.
- 3. Adjust the cold pressure** once the tyre is fitted and balanced. Comply scrupulously with the pressures we recommend or that your Michelin Technician has given you.
- 4. Set your tyre warmers to 90 degrees and place them on your tyres for at least 1 hour.** Check that these are plugged in correctly and in good operating condition, and do so regularly throughout the warming period.

Advice from the Michelin Man: place your warmer's fixing strap level with the valve; this will make it easier to check your pressure because you'll know where your valve is positioned.

- 5. Adjust your tyre pressures when hot.** (minimum 80°C) before going out onto the track (record them).
- 6. Install valve caps** in order to guarantee your tyres are leaktight. Never ride without the valve caps on.

.....
Once all these steps have been followed, you can hit the track!!

- 7. On returning to the pits, read and record your tyre pressures** in order to know whether you have the correct pressure recommended by your manufacturer. Adjust the pressures if necessary, in accordance with the values found.
- 8. Replace the warmers on your tyres** fairly quickly so as not to allow them to cool off suddenly and so that you can reuse them under the best conditions.

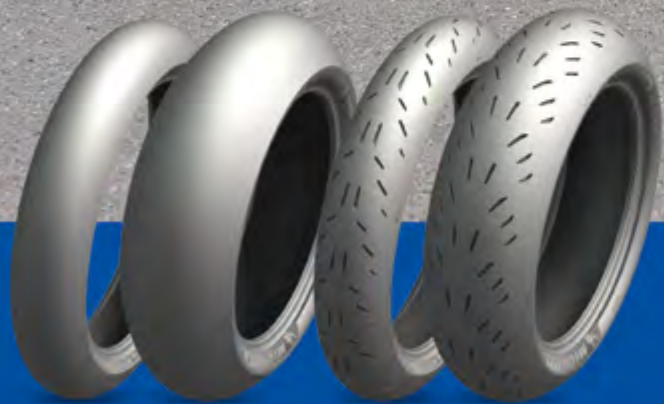
Advice from the Michelin Man: to reduce the tyre warming cycles, it is recommended the tyres be kept under warmers throughout the day

MICHELIN POWER PERFORMANCE

ADOPT THIS TYRE JUST LIKE
JOHANN ZARCO!



ZARCO #15



The MICHELIN Power Performance tyre range is aimed at both amateur and experienced competitive riders.



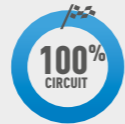
www.michelinmotorsport.com

WHICH TYRE FOR WHICH USE?

	COMPETITION	TRACK DAYS	ROAD
NOT APPROVED FOR ROAD USE	MICHELIN POWER PERFORMANCE SLICK	●	
	MICHELIN POWER PERFORMANCE CUP	●	
	MICHELIN POWER SUPERMOTO /RAIN	●	●
	MICHELIN POWER RAIN	●	●
	MICHELIN POWER SLICK EVO		●
APPROVED FOR ROAD USE		●	●

FOR TRACK USE ONLY

MICHELIN
POWER Slick^{Evo}

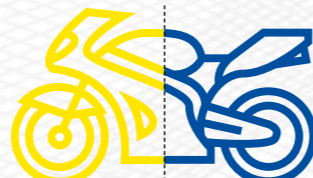


TYRES NOT APPROVED FOR ROAD USE



FRONT	
CAI	Dimensions
079725	120/70 ZR 17 (58W)

REAR	
CAI	Dimensions
563738	190/55 ZR 17 (75W)
043762	200/55 ZR 17 (78W)



	FRONT	REAR
Minimum cold pressure on track ⁽¹⁾	2.1	1.5

THE TRACK TYRE FOR INTENSE EXPERIENCES

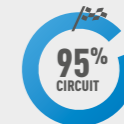
- An exceptional level of grip
- Quick control, without specific adjustments to the bike
- Straight line stability and optimum hold while cornering with the Michelin "Adaptive Casing Technology" (ACT)



(1) Pressure taken with tyre and rim at ambient temperature, just before the first ride or just before installing the tyre warmers.

ROAD-APPROVED TRACK USE

MICHELIN
POWER Cup^{Evo}



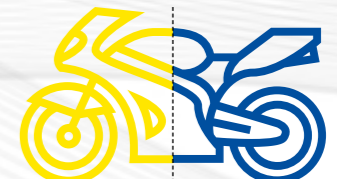
TYRES APPROVED FOR ROAD USE



FRONT	
CAI	Dimensions
N 833295	110/70 ZR 17 (54W)
149126	120/70 ZR 17 (58W)

REAR	
CAI	Dimensions
N 389695	140/70 ZR 17 (66W)
N 981679	150/60 ZR 17 (66W)
N 050185	160/60 ZR 17 (69W)
857557	180/55 ZR 17 (73W)
534402	190/55 ZR 17 (75W)
140448	200/55 ZR 17 (78W)

N = NEW



	FRONT	REAR
Minimum cold pressure on track ⁽¹⁾	2.1	1.5

⚠ For road use, comply with the constructor's pressure recommendations.

THE TREADED VERSION OF THE SLICK TYRE

- An exceptional level of grip for a multipurpose road-approved tyre
- Quick control, without specific adjustments to the bike
- Straight line stability and optimum hold while cornering with the Michelin "Adaptive Casing Technology" (ACT)

(1) Pressure taken with tyre and rim at ambient temperature, just before the first ride or just before installing the tyre warmers.



WHAT TYRES SHOULD BE USED IN COMPETITION FOR A 300CC BIKE?

MICHELIN Power Cup Evo is now available in four new dimensions:

- For the front: 110/70 ZR 17 (54W)
- For the rear: 140/70 ZR 17 (66W), 150/60 ZR 17 (66W) & 160/60 ZR 17 (69W)

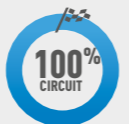
The solution for 300cc bikes!

FOR TRACK USE ONLY

**MICHELIN
POWER PERFORMANCE**



TYRE WARMERS
MUST BE USED



TYRES NOT
APPROVED
FOR ROAD USE

POWER PERFORMANCE SLICK

TYRE
OPTIMIZED
FOR
**1000CC
BIKES**



POWER PERFORMANCE CUP

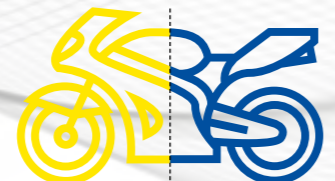
TYRE
OPTIMIZED
FOR
**600CC
BIKES**



THE MICHELIN POWER PERFORMANCE TYRE RANGE IS AIMED AT AMATEUR AND EXPERIENCED COMPETITION RIDERS.

BENEFIT FROM THE LATEST TECHNOLOGIES DEVELOPED IN MOTOGP™!

- Better warm-up
- Ease of control with any type of bike
- Better feedback
- Consistent performance
- Better lap times



	FRONT	REAR
Minimum cold pressure on track ⁽¹⁾	2.1	1.3
Hot pressure under tyre warmers ⁽²⁾	2.4 to 2.6	1.6 to 1.8
Target hot pressure (after 6 laps)	2.4 to 2.6	1.6 to 1.8

(1) Pressure taken with tyre and rim at ambient temperature, just before the first ride or just before installing the tyre warmers.
 (2) Michelin recommends setting the tyre warmer temperature to 90 degrees. The pressures are given for information purposes only and depend on the equipment and its correct operation.

WHAT TYRE SHOULD I CHOOSE?

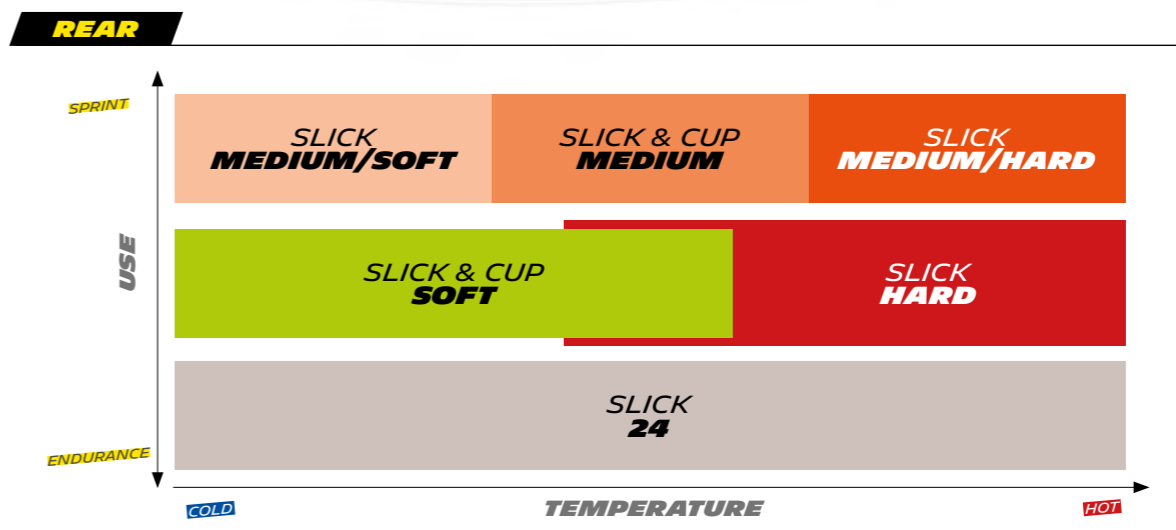
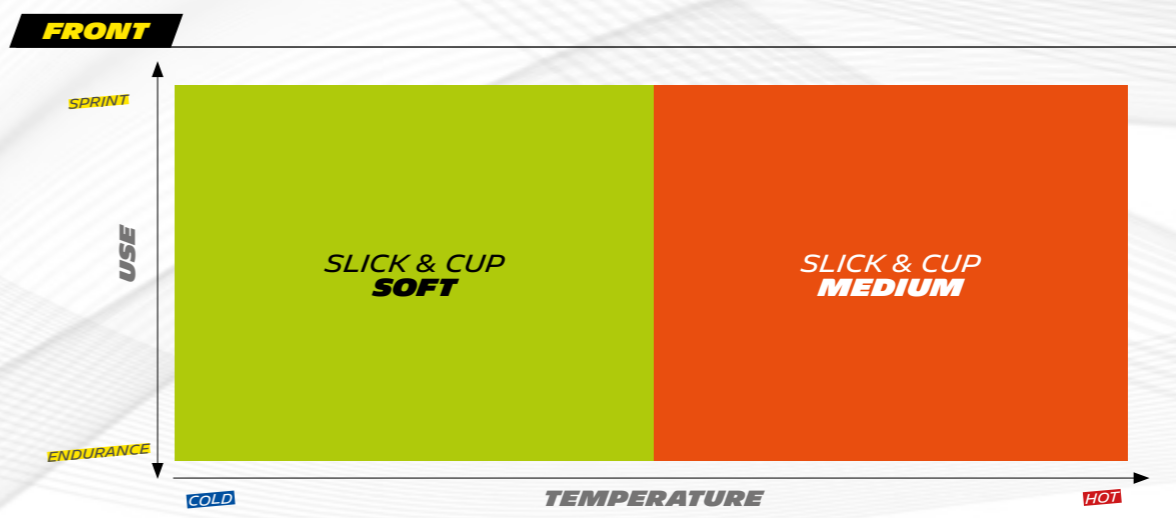
POWER PERFORMANCE SLICK

FRONT		
CAI	Dimension	Compound
450713	120/70 R 17 58V	SOFT
890610	120/70 R 17 58V	MEDIUM
REAR		
CAI	Dimension	Compound
373531	200/55 R 17 78V	SOFT
N 426881	200/55 R 17 78V	MEDIUM/SOFT
623973	200/55 R 17 78V	MEDIUM
N 206560	200/55 R 17 78V	MEDIUM/HARD
724843	200/55 R 17 78V	HARD
N 967394	200/55 R 17 78V	24

POWER PERFORMANCE CUP

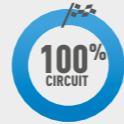
FRONT		
CAI	Dimension	Compound
012473	120/70 R 17 58V	SOFT
488769	120/70 R 17 58V	MEDIUM
REAR		
CAI	Dimension	Compound
360846	190/55 R 17 75V	SOFT
781276	190/55 R 17 75V	MEDIUM

N = NEW



FOR TRACK USE ONLY

MICHELIN
POWER Rain



TYRES NOT APPROVED FOR ROAD USE



FRONT	
CAI	Dimension
824200	12/60 R 17*

REAR	
CAI	Dimensions
407970	180/55 R 17
891701	19/69 R 17**

Track with high water level / Damp or drying track
* Equivalent to 120/70 R 17 / ** Equivalent to 190/55 R 17

THE 100% TRACK TYRE FOR THE WET

- Specially developed so that competition and your track days can continue when it rains
- Super grip! Maximum water evacuation with its very deep tread

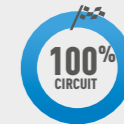


Minimum cold pressure on track ⁽¹⁾	FRONT	REAR
	2.1 à 2.4	1.8 à 2.4

(1) Pressure taken with tyre and rim at ambient temperature, just before the first ride or just before installing the tyre warmers.

FOR TRACK USE ONLY

MICHELIN
POWER SuperMoto



TYRES NOT APPROVED FOR ROAD USE



THE WORLD'S NO. 1 SUPERBIKE RANGE

- Developed in conjunction with the category's best riders
- Greater grip and lifespan thanks to rubbers stemming from competition
- Favoured by riders for its handling ability and more precise feedback at the front

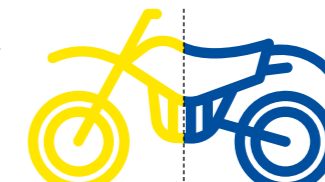
FRONT		
CAI	Dimensions	Compound
120870	120/80 R 16	A
313249	120/80 R 16	B
715737	120/75 R 16,5	A
366559	120/75 R 16,5	B

REAR		
CAI	Dimensions	Compound
883879	160/60 R 17	B
487703	160/60 R 17	C

FRONT		
CAI	Dimensions	Compound
886449	120/80 R 16	RAIN
060771	120/75 R 16.5	RAIN

REAR		
CAI	Dimensions	Compound
784399	160/60 R 17	RAIN

COMPOUND
A, B and C ranging from the highest performing to the most enduring rubbers.



Minimum cold pressure on track ⁽¹⁾	FRONT	REAR
	→ SLICK / GROOVED	1.8
→ RAIN	2	1.8

(1) Pressure taken with tyre and rim at ambient temperature, just before the first ride or just before installing the tyre warmers.

TECHNICAL DATA



POWER SLICK EVO

CAI	Dimension	Rim (in inches)	Diameter (in mm)
079725	120/70 ZR 17	3.5	602
563738	190/55 ZR 17	5.5	653
043762	200/55 ZR 17	6	663.5

POWER CUP EVO

CAI	Dimension	Rim (in inches)	Diameter (in mm)
149126	120/70 ZR 17	3.5	606
857557	180/55 ZR 17	5.5	637
534402	190/55 ZR 17	5.5	651.6
140448	200/55 ZR 17	6	663.5

NB : no technical data available for the dimensions 110/70 ZR 17, 140/70 ZR 17, 150/60 ZR 17 et 160/60 ZR 17

POWER PERFORMANCE SLICK

CAI	Dimension	Compound	Rim (in inches)	Diameter (in mm)	Development (in mm)
450713	120/70R17	SOFT	3.5	600	1884
890610	120/70R17	MEDIUM	3.5	600	1884
373531	200/55R17	SOFT	6	660	2072
426881	200/55R17	MEDIUM/SOFT	6	660	2072
623973	200/55R17	MEDIUM	6	660	2072
206560	200/55R17	MEDIUM/HARD	6	660	2072
724843	200/55R17	HARD	6	660	2072
967394	200/55R17	24	6	660	2072

POWER PERFORMANCE CUP

CAI	Dimension	Compound	Rim (in inches)	Diameter (in mm)	Development (in mm)
012473	120/70R17	SOFT	3,5	600	1884
488769	120/70R17	MEDIUM	3,5	600	1884
360846	190/55R17	SOFT	5,5	652	2047
781276	190/55R17	MEDIUM	5,5	652	2047

POWER RAIN

CAI	Dimension	Compound	Rim (in inches)	Diameter (in mm)	Development (in mm)
824200	12/60R17	RAIN	3.5	602	1890
407970	180/55R17	RAIN	5.5 / 6	640	2010
891701	19/69R17	RAIN	6	648	2035

SAFETY ADVICE FROM THE MICHELIN GROUP



USING COMPETITION TYRES



TIP FOR USE: PRESSURES AND TEMPERATURES

The inflation pressures must be respected; they are given so that you can begin your race or practice sessions under good performance and safety conditions. These pressures need to be adapted in accordance with the change in track temperatures and rider performance.

Michelin recommends you check your pressures before each ride.

For temperatures below 15°C, Michelin recommends increasing the front and rear tyre pressures by 0.1 Bar.

The entire MICHELIN Power Performance range requires the use of tyre warmers, in good operating condition that can provide a temperature of 90°. We recommend warming for 1 hour before taking to the track, if possible sheltered from the wind and air currents.

STORAGE/FITTING

Dampness, temperature, light and some chemicals or electrical items are known aging factors; it is therefore essential to store products correctly.

› **Humidity:**

Store tires in a cool, dry room with natural ventilation, in order to avoid condensation. Outside, cover them with a waterproof opaque tarpaulin.

› **Light:**

Protect tyres from UV (sunshine and artificial light).

› **Temperature:**

Must be higher than 15°C and below 35°C. Avoid any direct contact with pipes and radiators.

› **Electrical equipment, solvents, hydrocarbons, fuels, chemicals:**

Never store tyres in a room where these items of equipment and products are present.

› **Stock rotation:**

To be arranged so that the tyres stored first are used first.

› **Short term storage (< 4 weeks):**

Stack tyres flat, preferably on pallets. The height of the stacks must not exceed 1.2 m. After 4 weeks, it is recommended the stacks be reformed by reversing the order of the tyres. When mounted on rims, tires must be stored inflated, in a vertical position or just one tire high on shelving.

› **Long term storage (max. 5 years):**

Store tyres vertically on shelves located at least 10 cm off the ground. In order to avoid them deforming, rotate them slightly once a month.

› **Fitting:**

Fit in accordance with Michelin instructions. Find out more from your dealer.

RECOGNIZING DAMAGE



RUBBER BREAKAGES DUE TO COLD

THE BASICS

All the rubber mixtures used in the tyres have performances that fall within an extreme temperature range.

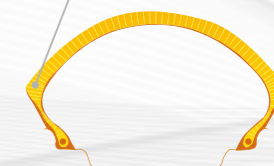
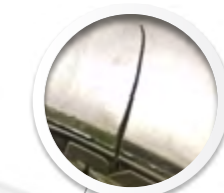
- A low temperature from which the rubber loses all elasticity and becomes brittle. This is called the breaking point. It can reach -55°C for some rubbers.
- A high temperature, generally over 200°C, from which the rubber also loses all its elasticity and becomes doughy/viscous. This is called the reversion point.

FOR THE VAST MAJORITY OF ROAD TYRES, ALL CATEGORIES INCLUDED, THESE TEMPERATURES LIMITS DO NOT CONSTITUTE A HINDRANCE TO THE NORMAL USE OF OUR TYRES.

SPECIFIC CASE FOR COMPETITION AND HYPERSPORT TYRES:

Within the framework of Competition and HyperSport tyres, the very high temperatures encountered (linked to the high grip levels) requires a tread mixture definition for higher operating temperatures.

Handling these tyres at some temperature levels may thus lead to breaks in the tread, rendering the tyre unusable.



Caution: breaks from cold come from inside the tyre and are not always visible.

They can, however, appear over the entire tyre.



MICHELIN
POWER Slick^{Evo}



MICHELIN
POWER Cup^{Evo}



MICHELIN
POWER SuperMoto



MICHELIN
POWER PERFORMANCE



RECOMMENDATIONS

Never handle these tyres at **temperatures of 5°C or less** in order to avoid any deformations or shock.

RECOMMENDATIONS

Never handles these tyres at **temperatures of 15°C or less** in order to avoid any deformations or shock.

Advice from the Michelin Man: Before fitting or removing the tyre, this must be stored for at least 24 hours at a temperature of 15°C or more.

GRAINING

DESCRIPTION

Formation of deep wrinkles, visible on the internal or external shoulder of the tyre.

CAUSES

- The mixture is not warmed up, the tyre is outside its window of use.
- The mixture temperature is too low; grip is therefore not generated.

CHECKS/ADVICE

- Increase the pressure.
- Change the rubber compound of the tyres.
- Also check and/or adjust the bike settings.



INJURIES



DESCRIPTION

Puncture and non-puncture crown injuries with or without tears. Localized braking.

CAUSES

External aggression, either from riding over sharp/blunt objects or by rubbing against a foreign body.

CHANGES

Tyre deterioration by running flat, ply rupture, loss of product cohesion.

CHECKS/ADVICE

- Check the conditions of use
- Check the usage pressures
- Replace the product(s) concerned if the injuries are deep and reach the plies or the casing



DESCRIPTION

Puncture and non-puncture sidewall injuries, with or without tears.

CAUSES

External aggression, either from riding over sharp/blunt objects or by rubbing against a foreign body.

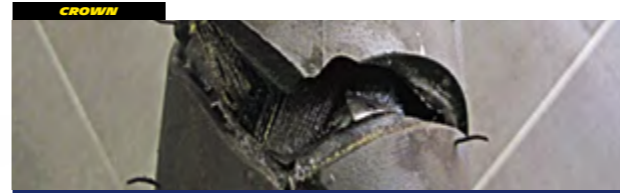
CHANGES

Rubber and ply rupture on the Sidewall. Running flat.

CHECKS/ADVICE

- Check the conditions of use
- Check the usage pressures
- Replace the product(s) concerned if the injuries are deep and reach the plies or the casing

SHOCK



DESCRIPTION

Shock with crown ply rupture. The trace of the chock is generally found on the tread.

CAUSES

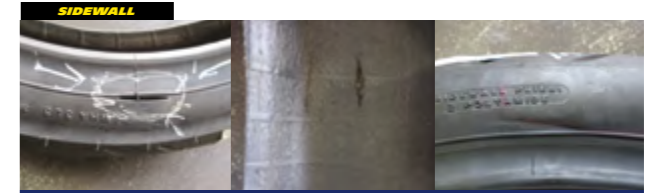
External aggression, from riding over sharp/blunt objects.

CHANGES

Rubber and ply rupture on the sidewall, running flat.

CHECKS/ADVICE

- Check the conditions of use
- Replace the tyre
- Examine the other tyres on the vehicle



DESCRIPTION

Stretching or folds in the casing ply with or without cable rupture. Radial break between the cables. Pinching shock. Instant rupture without pinching.

CAUSES

Shock or pinching to sidewalls when riding over a pothole or suddenly mounting the pavement.

CHANGES

Rubber and ply rupture on the Sidewall. Running flat

CHECKS/ADVICE

- Check the conditions of use
- Replace the product(s) concerned if the casings are damaged

CRACKS



DESCRIPTION

Tread cracks

CAUSES

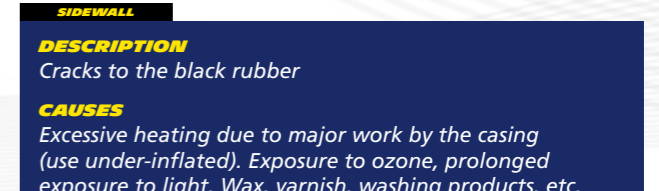
Product ageing. Exposure to ozone, UV, use of aggressive cleaning product. Risk of developing into breaks.

CHANGES

Breaks

CHECKS/ADVICE

- Check the use, parking/storage and vehicle maintenance conditions
- Replace the product(s) concerned if the cracks are deep and reach the plies or the casing



DESCRIPTION

Cracks to the black rubber

CAUSES

Excessive heating due to major work by the casing (use under-inflated). Exposure to ozone, prolonged exposure to light. Wax, varnish, washing products, etc.

CHANGES

Check the conditions of use.

CHECKS/ADVICE

- Check the conditions of use
- Riding type, speed load, pressure
- Check the tyre storage or maintenance conditions (in the warehouse or on the fleet)
- Check the usage pressures

BREAKS

CROWN



DESCRIPTION

Rubber breaks on the crown at the edge or base of the tread, with or without radial or circumferential tears.

CAUSES

Conditions of use.

CHANGES

Risk of infiltration with crown or sidewall deterioration.

CHECKS/ADVICE

- Check the conditions of use
- Replace the product(s) concerned if the injuries are deep and reach the plies or the casing

SIDEWALL

DESCRIPTION

Localized or generalized, radial, oblique or circumferential rubber breaks of greater or lesser size that may reach the plies. These breaks may be over every tyre zone.

CAUSES

Major mechanical stresses in the flexion zones.

CHECKS/ADVICE

- Check the conditions of use
- Roads, paths, drives
- Riding type, speed load, pressure
- Examine the other tyres on the vehicle
- Adapt the pressures to the use
- Replace the product(s) concerned if the breaks are deep and reach the plies or the casing

DISCOVER OUR RANGE OF TYRES
[MICHELINMOTORSPORT.COM/PNEUS](https://www.michelinmotorsport.com/pneus)

AND ALL THE NEWS ON
[MICHELINMOTORCYCLE.FR](https://www.michelinmotorcycle.fr)



Follow the news
from the world
Motorsport



www.michelinmotorsport.com

MICHELIN **MOTORSPORT**

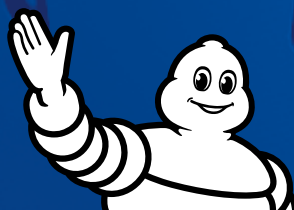
36 rue du Clos Four • 63040 Clermont-Ferrand • France
00 33 (0) 4 73 30 45 90

www.michelinmotorsport.com



**TYRES NOT APPROVED FOR ROAD USE.
FOR USE ONLY ON RACETRACKS OR IN COMPETITIONS,
IN ACCORDANCE WITH OUR RECOMMENDATIONS.**

In order to remain at the highest level of performance,
Michelin is constantly developing its range
and reserves the right to modify this
during the season.



MICHELIN