



RACEGUIDE

2024 FIA WEC



LE MANS 24 HOURS

Round 4 2024 FIA World Endurance Championship (FIA WEC)

92TH EDITION

JUNE 15-16, 2024



62
ENTRIES

#WeRaceForChange



TIMETABLE

FRIDAY, JUNE 7

10:00am-7:00pm Scrutineering and documentation

SATURDAY, JUNE 8

10:00am-3:00pm Scrutineering and documentation

SUNDAY, JUNE 9

10:00am-1:00pm Le Mans 24 Hours (Test)

2:00pm-3:00pm Ligier European Series (Race)

3:30pm-6:30pm Le Mans 24 Hours (Test)

TUESDAY, JUNE 11

2:00pm-3:00pm Pit-walk and autograph session

2:00pm-6:00pm Pits visit

3:15pm-4:30pm Pit-Stop Challenge

WEDNESDAY, JUNE 12

11:45am-12:45pm Road to Le Mans (Free Practice 1)

2:00pm-5:00pm Le Mans 24 Hours (Free Practice 1)

7:00pm-8:00pm Le Mans 24 Hours (Qualifying)

8:30pm-9:30pm Road to Le Mans (Free Practice 2)

10:00am-midnight Le Mans 24 Hours (Free Practice 2)

THURSDAY, JUNE 13

10:30am-10:50am Road to Le Mans (Qualifying 1)

11:05am-11:25am Road to Le Mans (Qualifying 2)

3:00pm-6:00pm Le Mans 24 Hours (Free Practice 3)

6:30pm-7:25pm Road to Le Mans (Race 1)

8:00pm-8:30pm Le Mans 24 Hours (Hyperpole)

10:00pm-11:00pm Le Mans 24 Hours (Free Practice 4)

FRIDAY, JUNE 14

3:00pm-8:00pm Track open to public

4:00pm-7:00pm Drivers' Parade (Le Mans city center)

SATURDAY, JUNE 15

10:35am-11:30am Road to Le Mans (Race 2)

12:00 noon-12:15pm Le Mans 24 Hours (Warm-up)

1:50pm-3:00pm Grid Walk

4:00pm Le Mans 24 Hours (Start)

THE 2024 RACE



All of the 23 Hypercar prototypes representing nine different makes racing at Le Mans this year are fitted with Michelin tires

Le Mans debuts for the BMW, Alpine, Lamborghini, Isotta Fraschini and Peugeot 9X8 Evo Hypercars

Like last year, the 2024 Le Mans 24 Hours is a tickets-only event

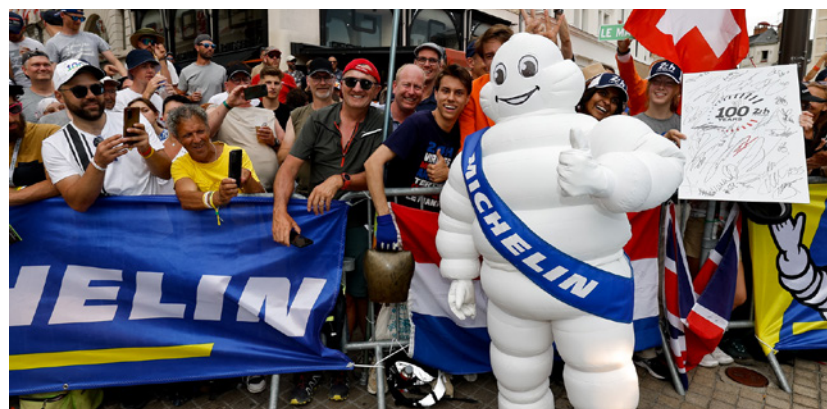
Tire warmers are no longer authorized for the Le Mans 24 Hours

The eight fastest cars in qualifying will go forward to the Hyperpole shootout session

During pit stops, tires may only be changed once refueling has been completed. Staying on the same set consequently saves time

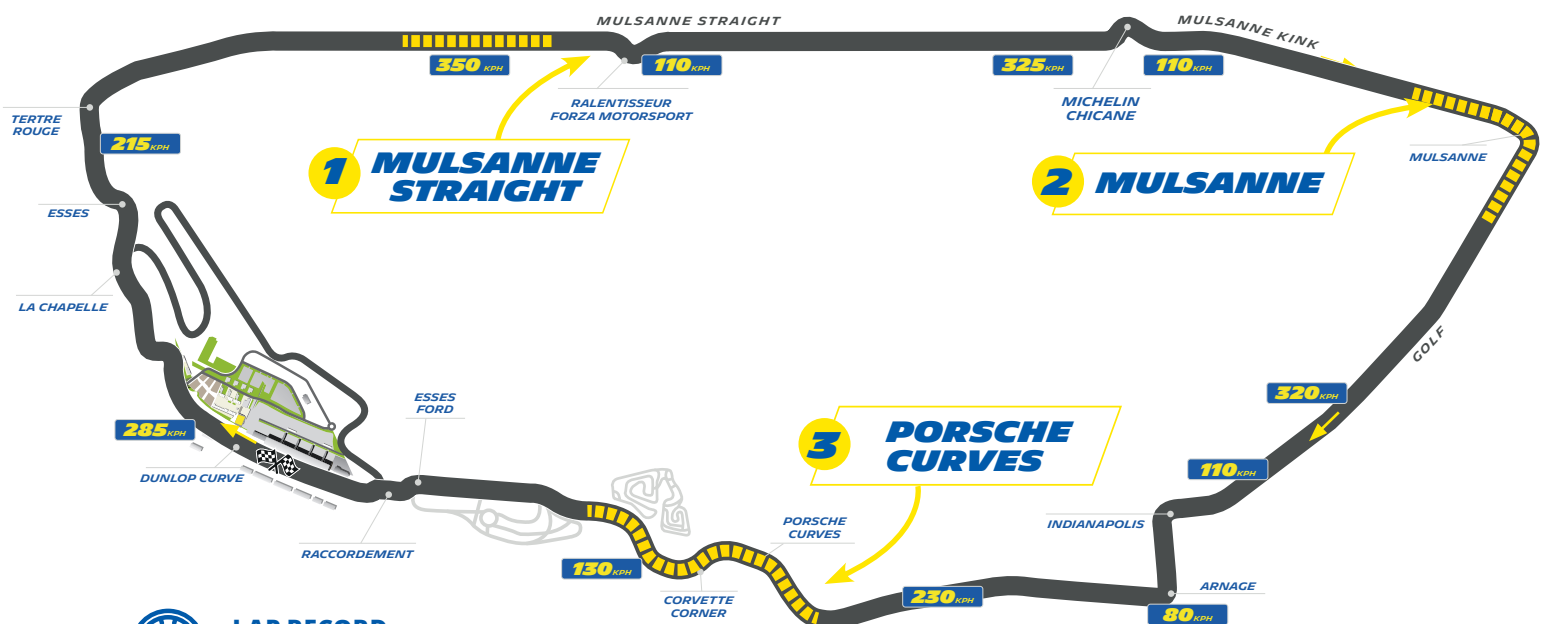
The Michelin '71'-equipped H24 hydrogen prototype, the Alpine Alpenglow Hy4 hydrogen concept car and the Ligier JS2 RH2 hydrogen prototype will perform parade laps prior to the start of this year's Le Mans 24 Hours

Michelin is a partner of the Ligier European Series and Road to Le Mans support races



THE CIRCUIT

24h
LE MANS



LAP RECORD

(13.626km circuit)

3m15.267s

(Kamui Kobayashi,
Toyota TS050 Hybrid/Michelin, 2020)

Average speed: 251.20kph

13.626KM

33
TURNS



CLOCKWISE

FEATURES

The longest and fastest circuit
visited by the 2024 FIA WEC

Non-permanent: 50 percent of
the circuit is open to ordinary
traffic the rest of the year

The surfaces of the track's
permanent and non-permanent
sections are different

Two chicanes slow the cars
along the 5.750km
Mulsanne Straight **1**

The Porsche Curves **3**
(Turns 23 to 27) form a
particularly challenging sequence
of high-speed turns

MICHELIN PILOT SPORT TIRE DATA AT LE MANS

When the prototypes are at their fastest (around 340kph down the Mulsanne Straight), their MICHELIN Pilot Sports become oval due to centrifugal force which can increase their diameter by as much as **1.4cm**. The phenomenon is countered by the aerodynamic downforce exerted on the car.

Braking for Mulsanne **2**, the Hypercars **slow from 315 to 90kph, shedding 200kph in just 200 meters and four seconds**. Each MICHELIN Pilot Sport has to dissipate **4,000 kilojoules** of energy in the process.

Entering the Porsche Turns **3**, each MICHELIN Pilot Sport is submitted to a lateral force of **2.8g** for a duration of four seconds at a speed of **around 240kph**. Lateral deformation can reach 5cm.

During a single lap of Le Mans (13.626km), each MICHELIN Pilot Sport rotates **6,500 times**.



LE MANS 24 HOURS THE 2023 RACE

24h
LE MANS



WINNERS:

Pier Guidi/Calado/Giovinazzi
(Ferrari 499P/Michelin),
342 laps (4,659.40km) at an average
speed of 194.1kph



POLE-POSITION:

Antonio Fuoco
(Ferrari 499P/Michelin),
3m22.982s (241.7kph)



**CHECK OUT OUR LE MANS
24 HOURS PREVIEW**



TOP SPEED:

Miguel Molina
(Ferrari 499P/
Michelin), 347.8kph

FASTEST RACE LAP:

Antonio Fuoco
(Ferrari 499P/
Michelin), 3m27.218s
(236kph)

A winning return to the
premier class at Le Mans
for Ferrari, 50 years after
its previous victory there

Ferrari's 10th Le Mans win

The centenary Le Mans
attracted a crowd of
325,000 despite the mixed
weather

Michelin's 26th
consecutive Le Mans
victory

Plenty of excitement with
no fewer than 40 leader
changes

Developed using
simulator technology
alone, the MICHELIN
Pilot Sport tire range
successfully triple-stinted
(500km)

The LMGTE class's final
appearance at Le Mans
saw Corvette/Michelin
take the category win



PIERRE ALVES

(Endurance Racing Program
Manager, Michelin Motorsport)



The MICHELIN Pilot Sport Hypercar range, which was developed entirely using simulation technology, is racing at Le Mans for the second year running, but the context is different this time around. We know the track and our tires perfectly, of course, but tire warmers have now been banned. It will therefore be the driver's job to get them up to their working temperature after every change. Depending on the compound, the time required to do this will vary from just a few turns in the case of the soft, to a little longer for the medium and perhaps an entire lap or more with the hard, depending on the style of driving. Our technicians will naturally be on-hand to advise the teams, but we already know that the best

**GIVEN THE LONGEVITY AND
CONSISTENCY OF OUR TIRES,
WE EXPECT MANY OF THE
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STINTS AT LEAST. IT IS ALSO
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CHANGE ALL FOUR TIRES AT
THE SAME TIME**

solution will be to stay on the same tires as long as possible. Given their longevity and consistency, we expect many of the teams will run quadruple stints at least. It is also possible they won't change all four tires at the same time. Since the beginning of this season, and as a function of the characteristics of the different circuits, we have seen several examples of them doing

this. We've also seen that mixing compound-types can be a winning strategy. When you change just two tires instead of four, there's the time-saving factor, too, of course. Whatever the tactics chosen, we are extremely proud of our tyres and can't wait for the start of the world's greatest endurance race which Michelin has won 32 times, including an ongoing sequence of 26 victories in a row.



MICHELIN'S FIA WEC RECORD

**88
WINS**

WITH 6 DIFFERENT MAKES
including Toyota (46 wins) and Porsche (19)
WITH 43 DIFFERENT DRIVERS
including Buemi (24 wins), Hartley (21) and Conway (18)

**11
MANUFACTURERS'
WORLD TITLES**

**11
DRIVERS'
TITLES**





MICHELIN PILOT SPORT RANGE

The MICHELIN Pilot Sports raced by today's sophisticated Hypercar prototypes were developed on simulators in the space of just months. Michelin has since continued to work on its reliable, high-performance range of endurance racing tires in response to the demand for superior longevity inline with Michelin's Everything Sustainable plan.

The regulations for the 2024 FIA World Endurance Championship restrict the number of different slick specifications to just two (three for Le Mans), plus a single type of rain tire. Tire warming systems are no longer authorized.

These two parameters have led Michelin Motorsport's engineers to work on the compounds of its slicks to make them even more versatile and enhance their warm-up performance.

Meanwhile, the single type of rain tire needs to cover a broad spectrum of conditions, from damp and drying, to heavy rain. The resulting solution combines a tread pattern with greater versatility.

All of the Hypercar prototypes (LMH/LMDh) race on MICHELIN Pilot Sports (front: 29/71-18, rear 34/71-18).

MICHELIN PILOT SPORT TRIVIA

Around 200 different 'ingredients' go into the 20 semi-finished assemblies that make up each MICHELIN Pilot Sport.

MICHELIN Pilot Sport tires are made by hand. The process takes around **30 minutes**, plus a further **20 minutes** for them to be cured at **180°C**.

The running temperature of a MICHELIN Pilot Sport slick can reach as high as **130°C**

A MICHELIN Pilot Sport can withstand a mass of **100 times** its own weight, equivalent to a family hatchback like the Renault Clio.

At 200kph, MICHELIN Pilot Sport rain tires can clear up to **120 liters** of water every second. That equates to **28,000 liters** per lap of Le Mans, or a million liters over the course of three stints.

The MICHELIN Pilot Sport tires that race at Le Mans were developed entirely virtually in just **10 months**.



THE MICHELIN PILOT SPORT RANGE

CUSTOMER RACING MICHELIN PILOT SPORTS

In addition to the 23 Hypercars contesting the 2024 Le Mans 24 Hours on Michelin rubber, Michelin is also the exclusive supplier to the 58 participants (40 LMP3 prototypes + 18 GT3 cars) contesting the Road to Le Mans, as well as to the 32 contestants in the Ligier European Series. These cars are fitted with S9M/S8M and P2L tires from Michelin's Customer Racing range.



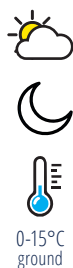
MICHELIN
STATISTIC

Thanks to the MICHELIN Pilot Sport's hallmark longevity and consistency, the teams are able to run triple and even quadruple stints at Le Mans. That equates to up to 650 kilometers at an average speed of 220kph. In 2023, the winning #51 Ferrari 499P pitted 30 times in all after performing three triple stints and nine double stints on either the medium or soft compound. Given that it takes around 20 seconds to change all four tires, it was able to save five minutes over the race's duration, equivalent to more than a complete lap!





SLICKS



Soft (white sidewall marking): soft compound / dry or slightly damp conditions / low temperatures (nighttime racing/early morning)



Medium (yellow): medium compound / dry conditions / the most versatile option



Hard (red): hard compound / dry conditions / high track temperatures / big constraints



RAIN TIRES

Wet (blue): soft compound / wet conditions / versatile

SLICK ALLOCATIONS

Free Practice + Qualifying	24 tires
Hyperpole	8 tires
Race	56 tires

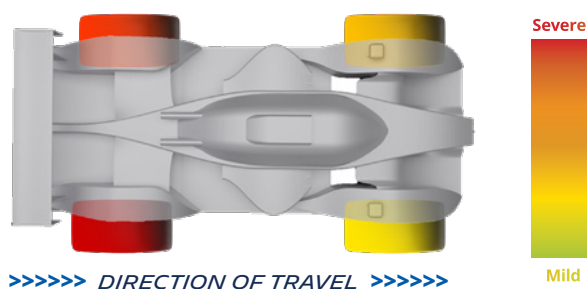
SIZES: FRONT: 29/71-18 • REAR: 34/71-18
Width (cm) / Exterior Diameter (cm) – Interior Diameter (inches)

TECHNICAL REQUIREMENTS

Minimum FRONT Stabilized Relative Pressure	2,0b = x psi
Minimum REAR Stabilized Relative Pressure	2,0b = x psi
Maximum FRONT camber at static ride height*	-2,7°
Minimum FRONT camber at static ride height*	-1,0°
Minimum REAR camber at static ride height*	-2,0°
Maximum REAR camber at static ride height*	-1,0°

(*) For example, if the minimum static camber angle is -3°, competitors may run at -2.5° but not at -3.5°

ENERGY LEVEL PER TIRE



MICHELIN'S LE MANS LOGISTICS

Approximately 4,100 MICHELIN Pilot Sports are available for the 23 Michelin-equipped cars entered for this year's Test Day and Le Mans 24 Hours race. The Monday after the Test Day, the tires that are used during the session (around 400) are returned to Clermont-Ferrand where they are replaced by the same number which arrive at Le Mans on the Tuesday of race week. This plan optimizes logistical costs and reduces Michelin's environmental impact.



THE MICHELIN PADDOCK

Tires taken to the circuit: approximately

4,100

Paddock
850M²

23
Hypercars
are racing on Michelin tires

MICHELIN MOTORSPORT'S STAFF AT LE MANS

TOTAL MICHELIN STAFF:

88

including

46

fitters

15

Technicians

19

Engineers

Fitters

Fitters comprise the bulk of Michelin Motorsport's personnel at Le Mans where they fit, balance and remove tires on one of the workshop's three lines. In the course of Le Mans week, they fit more than 4,100 Michelin tires. Order forms from partner teams are received via a bespoke application. The 54 fitters work in shifts during the race.

Technicians

The role of Michelin Motorsport's Technical Team Advisors delegated to work its partner teams (at least one per team) includes advising on tire usage and management of the teams' tire quotas. It also covers attending technical briefings with the teams' own engineers and drivers to assist with tire choices and tire-pressure recommendations. Their input can be decisive.

Developers

The development experts behind Michelin's Hypercar range attend the race to monitor tire performance, make sure that Michelin's usage recommendations are adhered to as a function of the cars' set-ups and respond swiftly in case of any issues. They contribute to the job of inspecting the tires that come off the cars after the early stints in order to see how the different plies performed in

order to possibly authorize triple or even quadruple stints.

Performance analysts

These engineers permanently monitor tire and car performance using the data and graphs provided by Michelin's partner teams. They check that the real-time data corresponds with the forecasts obtained during simulation work upstream of the race.

Tire analysts

Tire analysts section the tires that come off the cars to check that the different plies (crown, casing, sidewalls) and materials performed correctly. As a function of their findings, the developers decide whether the number of stints cars stay out on the same tires can be increased, and provide the teams' engineers and technicians with usage and set-up recommendations.



HYPERCAR**MICHELIN PARTNERS**

23 HYPER PROTOTYPES REPRESENTING 9 MANUFACTURERS

#2 CADILLAC RACING

Cadillac V-Series.R (LMDh)



E. BAMBER
 A. LYNN
 A. PALOU

#3 CADILLAC RACING

Cadillac V-Series.R (LMDh)



S. BOURDAIS
 R. VAN DER ZANDE
 S. DIXON

#4 PORSCHE PENSKE MOTORSPORT

Porsche 963 (LMDh)



M. JAMINET
 F. NASR
 N. TANDY

#5 PORSCHE PENSKE MOTORSPORT

Porsche 963 (LMDh)



M. CAMPBELL
 M. CHRISTENSEN
 F. MAKOWIECKI

#6 PORSCHE PENSKE MOTORSPORT

Porsche 963 (LMDh)



K. ESTRE
 A. LOTTERER
 L. VANTHOOR

#11 ISOTTA FRASCHINI

Isotta Fraschini Tipo6-C (LMH)*



A. SERRAVALLE
 C. WATTANA-BENNETT
 J-K. VERNAY

#7 TOYOTA GAZOO RACING

Toyota GR010 Hybrid (LMH)



JM. LOPEZ
 K. KOBAYASHI
 N. DE VRIES

#8 TOYOTA GAZOO RACING

Toyota GR010 Hybrid (LMH)



S. BUEMI
 B. HARTLEY
 R. HIRAKAWA

#12 HERTZ TEAM JOTA

Porsche 963 (LMDh)



W. STEVENS
 N. NATO
 C. ILOTT

#38 HERTZ TEAM JOTA

Porsche 963 (LMDh)



J. BUTTON
 P. HANSON
 O. RASMUSSEN

#15 BMW M TEAM WRT

BMW M Hybrid V8 (LMDh)*



D. VANTHOOR
 R. MARCIELLO
 M. WITTMANN

#20 BMW M TEAM WRT

BMW M Hybrid V8 (LMDh)*



S. VAN DER LINDE
 R. FRIJNS
 R. RAST

* Débuts en catégorie Hypercar en FIA WEC en 2024



HYPERCAR**MICHELIN PARTNERS**

23 HYPER PROTOTYPES REPRESENTING 9 MANUFACTURERS

#35 ALPINE ENDURANCE TEAM

Alpine A424 (LMDh)*



P.-L. CHATIN
 C. MILES
 F. HABSBURG

#36 ALPINE ENDURANCE TEAM

Alpine A424 (LMDh)*



N. LAPIERRE
 M. SCHUMACHER
 M. VAXIVIERE

#50 FERRARI AF CORSE

Ferrari 499P (LMH)



A. FUOCO
 M. MOLINA
 N. NIELSEN

#51 FERRARI AF CORSE

Ferrari 499P (LMH)



A. PIER GUIDI
 J. CALADO
 A. GIOVINAZZI

#63 LAMBORGHINI IRON LINX

Lamborghini SC63 (LMDh)*



M. BORTOLOTTI
 E. MORTARA
 D. KVIAT

#19 LAMBORGHINI IRON LINX

Lamborghini SC63 (LMDh)*



R. GROSJEAN
 A. CALDARELLI
 D. CAIROLI

#93 PEUGEOT TOTALENERGIES

Peugeot 9X8 (LMH)



2024 VERSION

J.-É. VERGNE
 M. JENSEN
 N. MÜLLER

#94 PEUGEOT TOTALENERGIES

Peugeot 9X8 (LMH)



2024 VERSION

P. DI RESTA
 L. DUVAL
 S. VANDORNE

#83 AF CORSE

Ferrari 499P (LMH)



R. KUBICA
 R. SHWARTZMAN
 Y. YE

#99 PROTON COMPETITION

Porsche 963 (LMDh)



H. TINCKNELL
 N. JANI
 J. ANDLAUER

#311 WHELEN CADILLAC RACING

Cadillac V-Series.R (LMDh)



L.-F. DERANI
 J. AITKEN
 F. DRUGOVICH

* Débuts en catégorie Hypercar en FIA WEC en 2024





THE MICHELIN-EQUIPPED HYPERCAR PROTOTYPES

VOITURE	POWER UNIT	POWER	TRANSMISSION
TOYOTA GRO10 HYBRID (LMH)	3.5-liter V6 bi-turbo + Toyota Hybrid System (front wheels)	500kW + 200kW	four-wheel drive, seven-speed Xtrac sequential gearbox
PEUGEOT 9X8 (LMH)	2.5-liter V6 bi-turbo + Peugeot MGU (front wheels)	500kW + 200kW	four-wheel drive, seven-speed Sadev sequential gearbox
FERRARI 499P (LMH)	3-liter V6 bi-turbo + hybrid system (front wheels)	500kW + 200kW	four-wheel drive, seven-speed Xtrac sequential gearbox
ISOTTA FRASCHINI TIPO6-C (LMH)	V6 turbo + MGU (front wheels)	500kW + 200kW	four-wheel drive, seven-speed Xtrac sequential gearbox
PORSCHE 963 (LMDh)	4.6-liter V8 bi-turbo + Bosch MGU (rear wheels)	500kW + 50kW	two-wheel drive, seven-speed Xtrac sequential gearbox
CADILLAC V-SERIES.R (LMDh)	5.5-liter V8 + Bosch MGU (rear wheels)	500kW + 50kW	two-wheel drive, seven-speed Xtrac sequential gearbox
ALPINE A424 (LMDh)	3.4-liter V6 turbo + Bosch MGU (rear wheels)	500kW + 50kW	two-wheel drive, seven-speed Xtrac sequential gearbox
BMW M Hybrid V8 (LMDh)	4-liter V8 bi-turbo + Bosch MGU (rear wheels)	477kW + 50kW	two-wheel drive, seven-speed Xtrac sequential gearbox
LAMBORGHINI SC63 (LMDh)	3.8-liter V8 bi-turbo + Bosch MGU (rear wheels)	500kW + 50kW	two-wheel drive, seven-speed Xtrac sequential gearbox



HYPERCAR STANDINGS

FIA WORLD ENDURANCE HYPERCAR CHAMPIONSHIP

MANUFACTURERS			R1 2/03	R2 21/04	R3 11/05	R4 15-16/06	R5 14/07	R6 1/09	R7 15/09	R8 2/11	TOTAL
1 st	PORSCHE		39	18	26						83
2 nd	TOYOTA		23	25	12						60
3 rd	FERRARI		18	13	18						49

DRIVERS			R1 2/03	R2 21/04	R3 11/05	R4 15-16/06	R5 14/07	R6 1/09	R7 15/09	R8 2/11	TOTAL
1 st	ANDRÉ LOTTERER		38	18	18						74
1 st	KÉVIN ESTRE		38	18	18						74
1 st	LAURENS VANTHOOR		38	18	18						74
2 nd	CALLUM ILOTT		27	0	25						27
2 nd	WILL STEVENS		27	0	25						27
3 rd	KAMUI KOBAYASHI		15	25	6						46
3 rd	MIKE CONWAY		15	25	6						46
3 rd	NYCK DE VRIES		15	25	6						46

ENDURANCE RACING: AN INNOVATION ACCELERATOR FOR MICHELIN

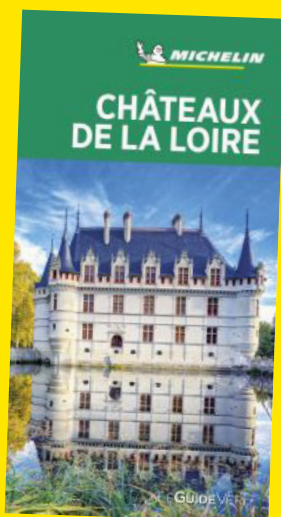
Michelin sees motorsport in general, and endurance racing and the Le Mans 24 Hours in particular, as a means to accelerate innovation. The proportion of renewable/recycled raw materials that go into MICHELIN Pilot Sport endurance-racing rain tires stands at 45 percent.

In 2021, Michelin presented a demonstration tire containing 46 percent recycled/renewable raw materials for the MissionH24 hydrogen fuel-cell racing prototype.

Since last season, the Wet rain tires raced by endurance racing's Hypercar prototypes incorporate 45 percent renewable/recycled raw materials.

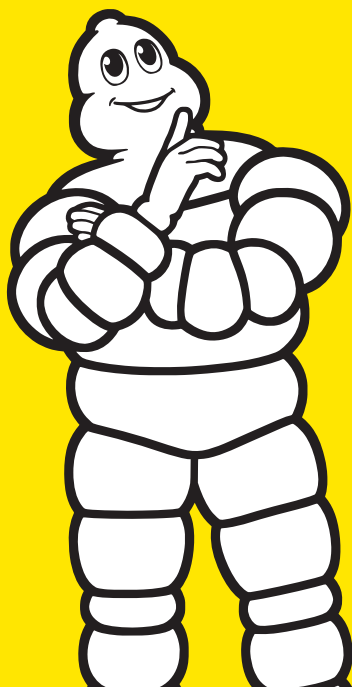
Motorsport is one of the driving forces behind Groupe Michelin's Everything Sustainable plan for 2050.





MICHELIN GREEN GUIDES

Discover the countless delights France has to offer, from the Loire Valley chateaux, Paris, the Alps, Basque country and the French Riviera to Brittany, the Riviera, the Massif-Central and innumerable other attractions with the Michelin Green Guide collection.



MICHELIN *AND THE LE MANS REGION*



- » Le Mans is the capital of France's Sarthe administrative department and has a population of approximately 150,000. The greater Le Mans region has a population of around 350,000.
- » Le Mans Old Town is historically associated with the Plantagenet royal lineage. It is surrounded by a red Gallo-Roman stone wall.
- » Le Mans sits at the confluence of the Sarthe and Huisne rivers.
- » Le Mans used to be known for its wax, silk and leather industries.
- » Le Mans hosted the first-ever French Grand Prix, in 1906 and its first 24-hour race in 1923. It was also home of France's first series-produced motor car – La Mancelle – in 1878.
- » Places to visit in and around Le Mans include Epau Abbey, Saint Julien's Cathedral, Plantagenet heritage sites, les Quinconces des Jacobins, the Old Town and the Tessé Museum.
- » The Le Mans region is within striking distance of many famous Loire Valley chateaux, such as Chenonceau, Chambord, Blois, Amboise, Azay-le-Rideau, etc.



MICHELIN LE MANS ANNIVERSARIES



10 YEARS AGO...

The 2014 race saw Tréluyer/Lotterer/Fässler claim their third Le Mans victory. Audi took its score to 13 wins on Michelin tires, while Porsche returned to the headlining class as a factory team, with Michelin. Michelin also provided the tires for Nissan's futuristic ZEOD RC prototype.

20 YEARS AGO...

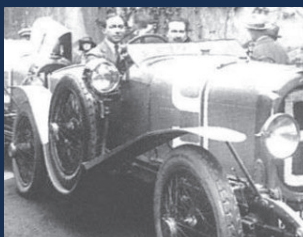
The Audi Sport Japan Team Goh-run Audi R8 of Ara/Capello/Kristensen took the win, ahead of the similar Team Veloqx (UK) and ADT Champion (USA) cars. Michelin monopolized the top six places overall and claimed both the GTS and GT classes with Corvette and Porsche respectively.

50 YEARS AGO...

In 1974, Michelin topped the GTS class at Le Mans with the Ferrari 365 GTB/4 of Grandet/Bardini. They came fifth overall and also claimed the Energy Index prize.

MICHELIN LE MANS HIGHLIGHTS

1923: MICHELIN CLAIMS INAUGURAL LE MANS 24 HOURS



On May 26, 1923, a field of 33 cars set off in pouring rain to contest the very first Le Mans 24 Hours, known at the time as the Grand Prix d'Endurance de 24 Heures. The race featured a 17-kilometer dirt circuit and produced a one-two finish for Chenard & Walcker/Michelin, led by the Lagache/Léonard car which averaged 92kph. Only three cars failed to finish.

NEW DISTANCE RECORD

The 2010 Le Mans 24 Hours saw Michelin and Audi establish a new distance record at Le Mans, with Rockenfeller/Dumas/Bernhard's Audi R15 TDI completing 5,410.713km (397 laps). The former record (5,335km) dated back to 1971 when the circuit layout was much faster. Michelin also holds the LMP2, LMGT Pro and Am distance records.

A DECISIVE FIFTH STINT CLINCHES 2011 WIN BY 13 SECONDS!



In 2011, the N°2 Audi R18 TDI/Michelin won Le Mans by a

margin of just 13.854 seconds after Benoît Tréluyer chose to go out for a fifth stint on the same set of tires following the car's final pit stop. The 30 or so seconds saved by not changing his Michelins allowed the Frenchman to shrug off the late pressure applied by a trio of charging Peugeot 908 HDi to the finish line!

NEW AVERAGE-SPEED RECORD



Japan's Kamui Kobayashi established a new record for Le Mans when qualifying his Toyota TS050 Hybrid/Michelin for the 2017 race. His pole-winning time of 3m14.791s equated to an average speed of 251.88kph, making it the fastest lap ever clocked in La Sarthe. The previous record dated back to 1985 (251.81kph). The 2017 race also saw Michelin post new lap records in LMP2, LMGT Pro and LMGT Am.

MORE THAN TWO F1 GRANDS PRIX ON THE SAME FOUR TIRES



In 2018, the 2009 F1 world champion Jenson Button covered 55 laps (750km) at an average speed of more

than 220kph on the same set of Michelin tires in his BR1-AER LMP1 prototype. That's equivalent to contesting more than two F1 grands prix without changing tires. Button posted the fastest lap of his quintuple stint (average speed: 242kph) 30th time around, 400km into his landmark run.

26 CONSECUTIVE WINS - A RECORD

Michelin holds the record for the longest unbroken winning spell at Le Mans (26 victories since 1998). In the course of this ongoing run, the French manufacturer has had to adapt its range frequently as a function of shifting technical regulations and technologies employed by the successive cars. The record for the highest total number of Le Mans wins is currently held by Dunlop (34), ahead of Michelin (32) and Goodyear (14).

A HYDROGEN PROTOTYPE AND SUSTAINABLE TIRES

As part of the build-up to the 2022 Le Mans 24 Hours, and in keeping with Michelin's commitment to more sustainable, low-carbon motorsport, the hydrogen-fueled H24 prototype completed a lap of the circuit on Michelin tires that contained 53 percent recycled and renewable raw materials. The 2024 race will see Michelin reveal a genuine racing tire that contains 71 percent recycled/renewable raw materials!

LANDMARK DATES MICHELIN AND LE MANS



1923: MICHELIN WINS INAUGURAL LE MANS

Michelin wins the very first edition of the Le Mans 24 Hours with André Lagache and René Leonard driving a Chenard & Walcker. They completed the race at an average speed of more than 92kph around the original 17-kilometer circuit.

1951: MICHELIN RETURNS TO LE MANS

Michelin returns to Le Mans with radial tires for a Lancia Aurelia B20GT. In addition to topping its class, the car came 12th overall after completing 3,000km on the same set of tires.

1967: SLICKS

Michelin innovates with the introduction of the first radial slicks to contest the Le Mans 24 Hours, fitted to an Alpine-Renault A210.

1978: AN ALL-FRENCH VICTORY

Victory for Didier Pironi and Jean-Pierre Jaussaud in a Renault-Alpine A442B on Michelin tires.

1989: A MICHELIN ONE-TWO

Michelin takes a one-two finish with the Sauber-Mercedes of Mass/Reuter/Dickens and Baldi/Acheson/Brancatelli.

1993: MICHELIN LOCKS OUT THE PODIUM

Peugeot and Michelin monopolized the podium with the 905 (winners: Brabham/Bouchut/Hélary).

1999: A MICHELIN TOP-FOUR

Michelin dominates the race to earn a one-two-three-four finish in association with BMW, Toyota and two Audis. It also secures top spot in the GTS class with Chrysler.

2000: FIRST WIN FOR AUDI-MICHELIN

Michelin and its partner Audi score a one-two-three finish in La Sarthe, with the win going to Kristensen/Biela/Pirro.

2003: BENTLEY-MICHELIN, 79 YEARS LATER

Two years after returning to endurance racing, Bentley scores a one-two finish and its fifth overall win, 79 years after the last. Michelin tops every class.

2006: THE FIRST DIESEL WIN AT LE MANS

Audi achieves success with diesel technology at Le Mans on Michelin tires developed specifically to deal with the high forces generated by the R10 TDI prototypes.



2007: TEN IN A ROW FOR MICHELIN

Michelin takes victory for the tenth consecutive year at Le Mans. It's the French manufacturer's 16th win at the legendary race.

2009: PEUGEOT-MICHELIN: 16 YEARS LATER

Peugeot and Michelin secure a one-two finish at Le Mans, 16 years after their last success together in 1993. Michelin once again wins all four classes and locks out the top 15 positions in the overall standings.

2010: ONE-TWO-THREE FOR AUDI-MICHELIN

The three works Audi R15 TDIs lock out the podium to notch up a ninth Le Mans victory for the Audi-Michelin partnership. The N°9 Audi sets a new distance record after covering 5,410.71km on just 11 sets of tires!

2011: 20TH MICHELIN VICTORY AT LE MANS

Michelin celebrates its 20th victory (its 14th in a row) at Le Mans and shares a tenth success with its partner Audi. The winning N°9 Audi completes five consecutive stints on the same Michelin tires.

2012: FIRST LE MANS SUCCESS FOR HYBRID POWER

Michelin secures its 15th straight win at Le Mans with the Audi R18 e-tron quattro. The Michelin-equipped car goes down in history as the first hybrid prototype (diesel/electricity) to win the French race. First Le Mans appearance for the Michelin Hybrid, a slick intermediate tire.

2015: PORSCHE-MICHELIN BACK ON TOP

Seventeen years after their last victory together at the Circuit de la Sarthe, Porsche and Michelin win the 2015 race with the 'third' Hybrid 919 in the hands of Le Mans novices Nico Hülkenberg, Earl Bamber and Nick Tandy. It is Michelin's 24th victory at the famous French race.

2016: A MEMORABLE START AND FINISH!

For the first time, the Le Mans 24 Hours starts behind a Safety Car following a heavy shower moments before the start. While leading, the N°5 Toyota suffers a cruel mechanical problem during the race's penultimate lap which hands victory to the N°2 Porsche 919 Hybrid/Michelin of Marc Lieb, Neel Jani and Romain Dumas.

2017: PORSCHE/MICHELIN WINS BUT TWO LM P2 CARS ON THE PODIUM

Once again, Toyota comes close to winning the Le Mans 24 Hours but glory escapes it yet again. Victory ends up in Porsche's hands for the third year running, while second and third places go to LM P2 prototypes.

2018: TOYOTA/MICHELIN'S FIRST LE MANS SUCCESS

Toyota celebrates its 20th attempt at the Le Mans 24 Hours with a one-two finish for the TS050 Hybrid/Michelin. First Le Mans win for F1 star Fernando Alonso.

2019: A MICHELIN GRAND SLAM

Michelin wins all four classes (LMP1, LMP2, LMGTE Pro, LMGTE Am) for the first time since 2010.

2020: NO SPECTATORS

Toyota and Michelin make it three wins in a row in front of empty grandstands due to the Covid-19 pandemic. Another grand-slam performance for Michelin whose partners top all for classes.

2021: MICHELIN'S 24TH STRAIGHT WIN

Michelin extends its unbeaten run at Le Mans to 24 victories since 1998. Its brand new tires for the Hypercar entries help Toyota and its GR010 Hybrid claim the first race of the race's Hypercar era.

2022: 5 IN-A-ROW FOR TOYOTA WITH MICHELIN

Toyota/Michelin claims its fifth straight Le Mans victory. Porsche and Michelin wins the last LMGTE Pro race at the Le Mans 24 Hours, establishing a new distance-record (4,769km) in the process.

2023: FERRARI'S WINNING RETURN, WITH MICHELIN

Making its return to Le Mans 50 years after its last win, Ferrari won the race's centenary edition with its 499P Hypercar on Michelin tires. Michelin also celebrated the final appearance of LMGTE cars by claiming the LMGTE Am victory with Corvette



MICHELIN RECORDS AT LE MANS

26

The highest number of consecutive wins (since 1998)

251.88KPH

Fastest ever average speed over one lap (with Toyota, in 2017)

5,410.713KM

Distance record over 24 hours (with Audi, in 2010)

225.22KPH

Fastest average speed over 24 hours (with Audi, in 2010)

54

The highest number of cars to contest Le Mans on Michelin rubber (91% of the entry, in 2020)

8

The highest number of Le Mans wins by the same driver (Tom Kristensen)

5

The most wins by the same car (Audi R8)

15

The highest number of overall places at the finish monopolized by cars equipped by the same tire manufacture (2009)

33

The highest number of pole positions (since 1963)

MICHELIN'S LE MANS RECORD

32

victories

(including an unbeaten run of 26 wins since 1998)

92

podiums

33

pole positions

2023 Pier Guidi/Calado/Giovinazzi
Ferrari 499P

2022 Buemi/Hartley/Hirakawa
Toyota GR010 Hybrid

2021 Conway/Kobayashi/Lopez
Toyota GR010 HYBRID

2020 Nakajima/Buemi/Hartley
Toyota TS050 Hybrid

2019 Nakajima/Buemi/Alonso
Toyota TS050 Hybrid

2018 Buemi/Nakajima/Alonso
Toyota TS050 Hybrid

2017 Bernhard/Hartley/Bamber
Porsche 919 Hybrid

2016 Jani/Lieb/Dumas
Porsche 919 Hybrid

2015 Hulkenberg/Bamber/Tandy
Porsche 919 Hybrid

2014 Tréluyer/Fassler/Lotterer
Audi R18 e-tron quattro

2013 Kristensen/McNish/Duval
Audi R18 e-tron quattro

2012 Tréluyer/Fassler/Lotterer
Audi R18 e-tron quattro

2011 Tréluyer/Fassler/Lotterer
Audi R18 TDi

2010 Dumas/Bernhard/Rockenfeller
Audi R15 TDi

2009 Brabham/Gené/Wurz
Peugeot 908 HDi FAP

2008 Capello/Kristensen/McNish
Audi R10 TDi

2007 Biela/Pirro/Werner
Audi R10 TDi

2006 Biela/Pirro/Werner
Audi R10 TDi

2005 Kristensen/Lehto/Werner
Audi R8

2004 Kristensen/Ara/Capello
Audi R8

2003 Kristensen/Capello/Smith
Bentley Speed 8

2002 Biela/Kristensen/Pirro
Audi R8

2001 Biela/Kristensen/Pirro
Audi R8

2000 Biela/Kristensen/Pirro
Audi R8

1999 Winkelhock/Martini/Dalmas
BMW V12 LMR

1998 McNish/Aiello/Ortelli
Porsche 911 GT1

1995 Dalmas/Lehto/Sekiya
McLaren F1 GTR

1993 Brabham/Bouchut/Hélary
Peugeot 905

1992 Warwick/Dalmas/Blundell
Peugeot 905

1989 Mass/Dickens/Reuter
Sauber C9-Mercedes-Benz

1978 Pironi/Jaussaud
Renault-Alpine A442b

1923 Lagache/Léonard
Chenard & Walcker Sport

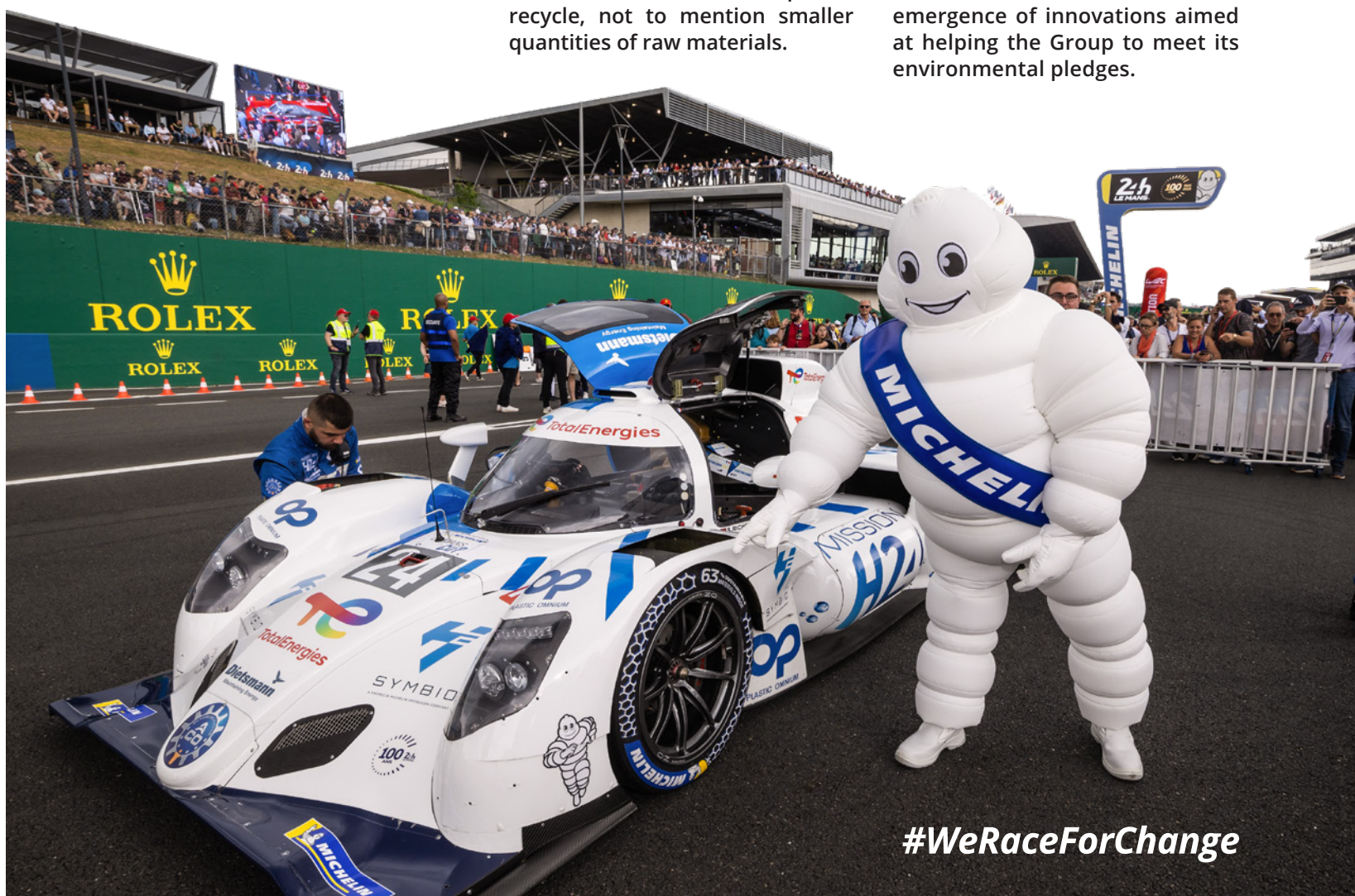
MICHELIN'S ENVIRONMENTAL COMMITMENT

Michelin sees endurance racing - and the Le Mans 24 Hours in particular - as an accelerator of innovation in its quest for increasingly environmentally-respectful raw materials and technologies that contribute to the Group's 'Everything Sustainable' target by 2050.

The entry for this year's Le Mans 24 Hours features 23 prototypes representing nine car manufacturers in the headlining Hypercar class, for which Michelin has developed a range of specific tires.

The use of CAD and simulator technology enabled Michelin to halve the time necessary for the development of these new tires, while slashing the cost of the process and the quantity of materials required by 75 percent. The longevity of Michelin's tires has long enabled its partners to run double, triple and even quadruple stints with a view to saving time during pit stops, with no detriment to performance. This, too, has contributed to reducing the firm's environmental footprint at Le Mans over the years, since fewer tires raced means fewer tires to manufacture, ship and recycle, not to mention smaller quantities of raw materials.

Working in favor of sustainable mobility is central to the partnerships Michelin strikes in motorsport. In 2021, it revealed a new demonstration endurance-racing tire that contained 46 percent recycled and renewable raw materials. Three years on, that figure has been raised to 71 percent in the case of the tires for the H24 hydrogen prototype. Meanwhile, today's MICHELIN Pilot Sport Wets for the Hypercars contain 45 percent recycled/renewable materials. The nature of motorsport may be evolving, but it continues to enable Michelin to accelerate the emergence of innovations aimed at helping the Group to meet its environmental pledges.



#WeRaceForChange



WHAT'S NEW IN 2024

CLASSES

Only two classes: Hypercar and LMGT3

The Hypercar class covers LMH (hybrid and non-hybrid) and LMDh (hybrid) prototypes

LMH prototypes: Toyota GR010 Hybrid, Peugeot 9X8, Ferrari 499P, Isotta Fraschini Tipo6-C

LMDh prototypes: Porsche 963, Cadillac V-Series.R, Alpine A424, BMW M V8 Hybrid, Lamborghini SC63

VENUES

2 new venues:

Losail (Qatar), Imola (Italy)

2 returning venues:

Sao Paulo (Brazil), CoTA (USA)

QUALIFYING

New format,

with two sessions per class: Qualifying (12 minutes), followed by a Hyperpole shootout, featuring the 10 fastest cars from Qualifying (10 minutes).

2024 CALENDAR

R1	QATAR 1812 KM	March 2
	(Qatar, Losail)	
R2	6 HOURS OF IMOLA	April 21
	(Italy)	
R3	6 HOURS OF SPA-FRANCORCHAMPS	May 11
	(Belgium)	
R4	LE MANS 24 HOURS	June 15-16
	(France)	
R5	6 HOURS OF SAO PAULO	July 14
	(Brazil)	
R6	LONE STAR LE MANS	September 1
	(Texas, USA)	
R7	6 HOURS OF FUJI	September 15
	(Japan)	
R8	8 HOURS OF BAHRAIN	November 2
	(Sakhir)	

FIA WEC TIRE REGULATIONS

SPECIFICATIONS

Number of specifications for dry-weather tires			Number of specifications for wet-weather tires
Le Mans 24 Hours	Other races	Total over the season	
3	2	3	1

Two slick specifications for the season for all cars, to be registered 48 hours before the Prologue Test. For individual races, two of the three specifications to be nominated 48 hours at the latest prior to the start of scrutineering (three specifications for Le Mans).

ALLOCATIONS

Free Practice + Qualifying	Hyperpole**	Race
24	8	56

(*) Or of 1812km.

(**) Only the softest tire proposed by the tire manufacturer for this competition will be used for Hyperpole.

- The tire manufacturer must establish identical technical requirements (pressure and camber) for all the Competitors. The non-respect of these requirements by the Competitors may be penalized by the Panel of the Stewards.
- The WEC Committee will be able to modify the random attribution mechanism and the tire collection and reintroduction mechanism at any moment during the season.
- To go from the pit lane to the starting grid before the start of the race, the tires used can be either dry-weather tires or wet-weather tires and will not be counted in the allocation.
- Tyres used for the warm up will not be considered

HYPERPOLE

Michelin to select the compound for use in the Hyperpole sessions

The choice of compound for this session will be specified by Michelin, with all 10 cars contesting the shoot-out on the same type of tire. The four covers employed will be supplied in addition to the competitor's basic allocation but they may not be used for

the race itself. Instead, the Hyperpole tires will be retrieved at the end of the session and will be made available to Michelin's partners for private testing at a later date.

RAIN TIRES

The number of wet-weather tires usable during a Competition is not limited. During practices and the race, wet-weather tires can only be used once the track has been declared wet by the Clerk of the Course / Race Director.

Any chemical and/or mechanical treatment of the tires is prohibited, except for the removal of debris collected on the track.

The tread and profile of the tires must not be modified or recut.

Any process that involves a direct or indirect attempt at modifying the temperature of a tire (compared to the ambient temperature) is forbidden.

Use of storage tents in designated areas is permitted only if they are always ventilated with ambient air and accessible.

Infringement of the tire allowance: Stop & Go of 2 minutes per tire.

Infringement of the tire heating rules: Stop & Go of 3 minutes during the race.

Four mechanics and two tire guns allowed for wheel changes during pit stops. Wheel changes are only allowed when the car is not being refueled.

Only one tire technician is allowed to measure tire temperatures and pressures.

Tire changes may only be carried out on the starting grid up to the five-minute board, in front of the garage or inside the garage if significant work is being undertaken on the car, on the track in the case of a suspension of the race.

Each tire must be identified by RFID and barcode. All references must be declared to the Technical Delegate at least 48 hours before the start of the Competition.



***OUR VICTORIES,
YOUR GAIN!***



From left to right: the MICHELIN Pilot Sport Endurance (for the World Championship's Hypercars), MICHELIN Pilot Sport® S and MICHELIN Pilot Sport®

MICHELIN PILOT SPORT

The MICHELIN Pilot Sport is unbeaten in the FIA World Endurance Championship since 2012. Benefit from the grip and precision delivered by the MICHELIN Pilot Sport range of road tires!

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