



# RACEGUIDE

2024 FIA WEC

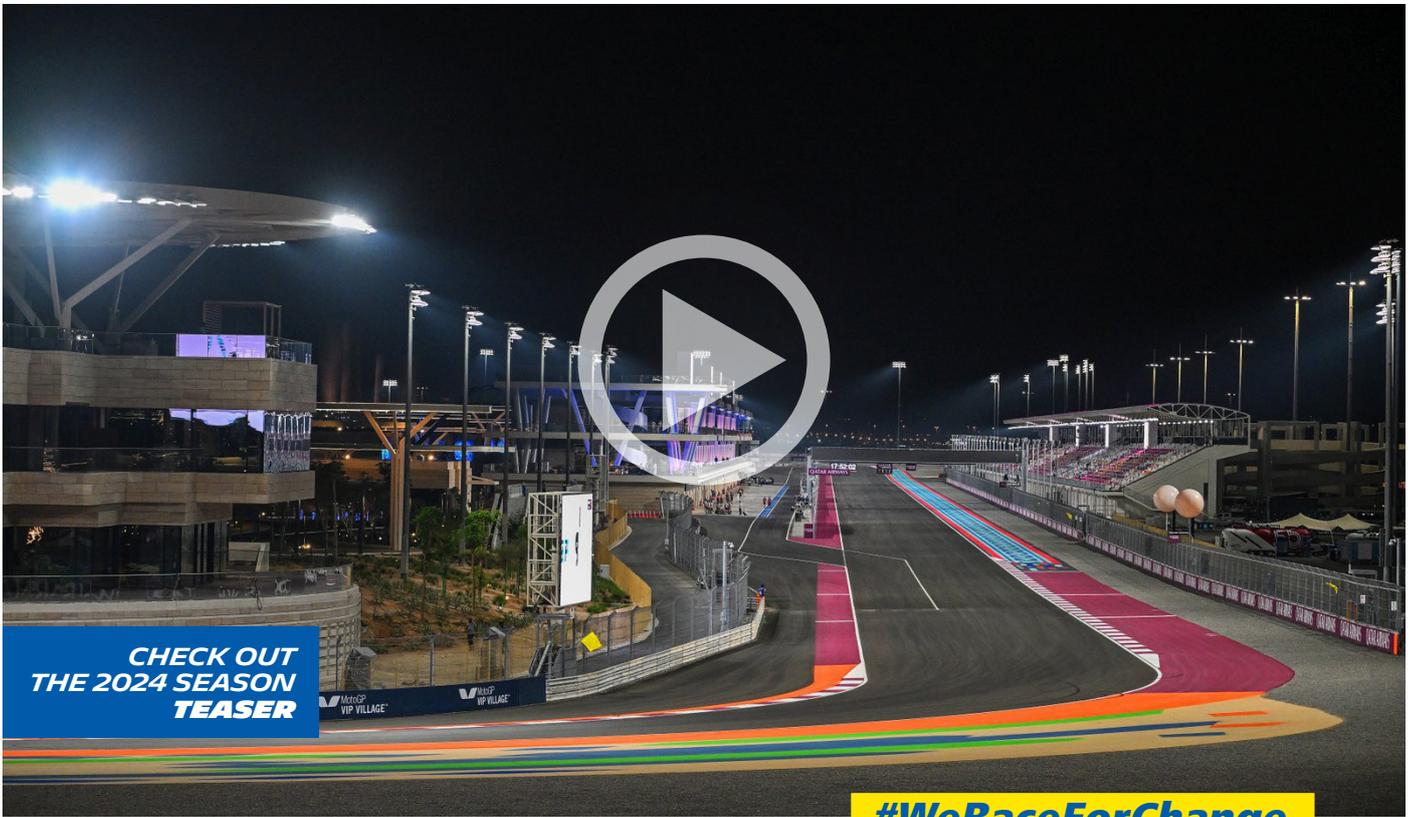


## QATAR AIRWAYS QATAR 1812KM



Round 1, 2024 FIA World Endurance Championship (FIA WEC)

LOSAIL (QATAR)



CHECK OUT  
THE 2024 SEASON  
TEASER

#WeRaceForChange

THURSDAY,  
FEBRUARY

29

Free Practice 1  
12:20pm  
(90 minutes)

Free Practice 2  
5:30pm  
(90 minutes)

FRIDAY,  
MARCH

1

Free Practice 3  
11:00am • (60 minutes)

Hypercar Qualifying  
4:20pm • (12 minutes)

Hypercar Hyperpole  
4:58pm • (10 minutes)

SATURDAY,  
MARCH

2

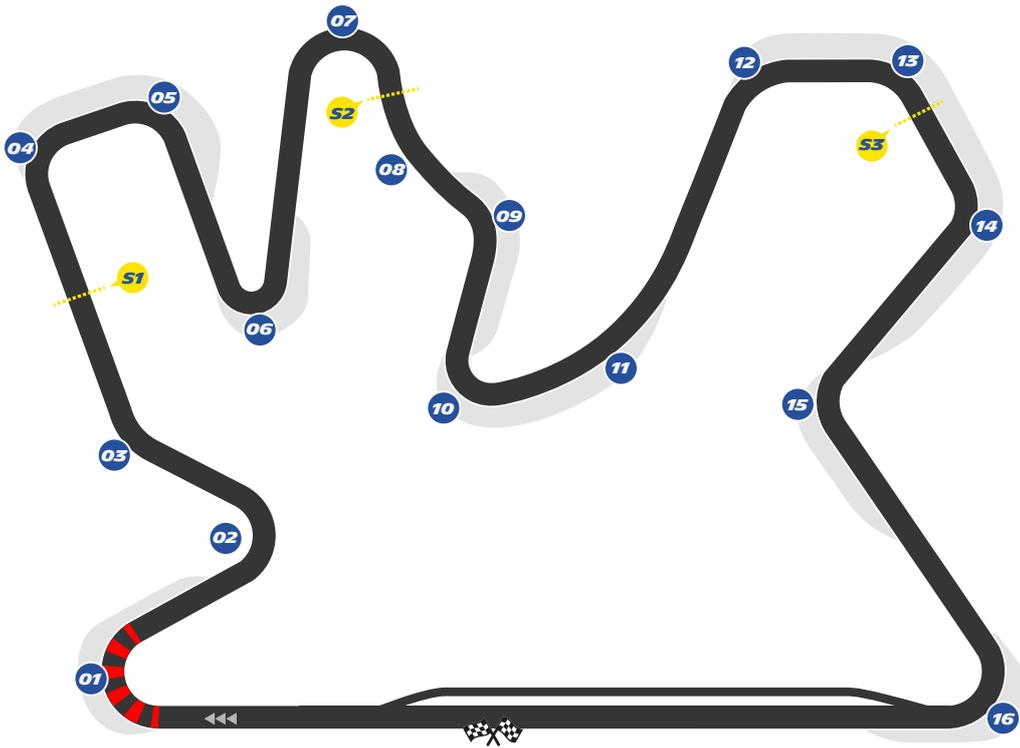


11:00am  
Start

Local time • SOURCE : fiawec.com - information subject to change



# LOSAIL INTERNATIONAL CIRCUIT



**1<sup>ST</sup> RUNNING**

**37**  
**ENTRIES**

- » INAUGURATED IN 2004
- » HOSTING AN FIA WEC RACE FOR THE FIRST TIME THIS SEASON
- » TRACK RESURFACED IN 2023
- » FLOODLIT
- » A 1,068 METER LONG STRAIGHT AND MEDIUM- AND HIGH-SPEED CORNERS

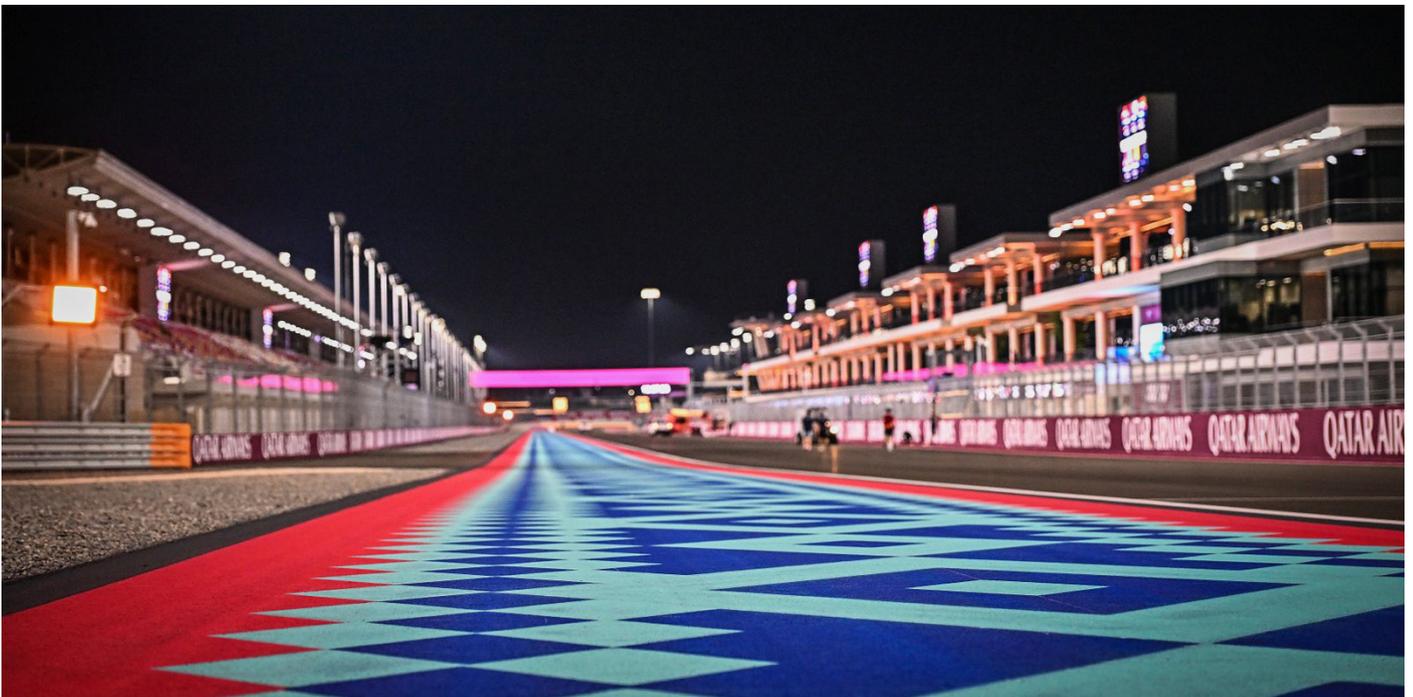
**5.380KM**

**16**  
**TURNS**



**CLOCKWISE**

**DAY- AND**  
**NIGHT-TIME**  
**RACING**



## **PIERRE ALVES**

Endurance Racing Manager,  
Michelin Motorsport



It's been a long winter spent working on the simulator, testing, analyzing, planning production and making sure that all the logistics are in place for the 2024 FIA WEC. We can hardly wait for the season to start. With no fewer than nine manufacturers involved in the Hypercar class, it promises to be a thriller. Losail International Circuit is notoriously hard on tires due to its extremely long straight and 16 medium- and high-speed corners. Particularly harsh for the left tires is the sequence of three right-handers beginning with Turn 12 which the cars enter at more than 200kph before staying on the same trajectory through the next two. Good lap times depend on the speed you carry through here into the last sector. The

### // **LOSAIL INTERNATIONAL CIRCUIT IS NOTORIOUSLY HARD ON TIRES**

track was entirely resurfaced in 2023 and the new, perfectly flat asphalt provides excellent grip once the track is clean and rubbered in. With 37 cars in action, we are effectively hoping it will rubber in quite quickly so that we can start the process of correlating the data with our simulations for the medium- and hard-compound tires that all the Hypercars will have. The race itself runs from 11am to 9pm, so the conditions will be very hot for the first six hours or so when we expect all the teams to fit the hard option until the sun sets at around five-thirty. It will then be interesting to see what strategies the teams choose, with a possible switch to the medium for one, two, three or four wheels, or none at all!



## **PALMARÈS MICHELIN EN FIA WEC**

**85  
WINS**

**WITH 6 DIFFERENT MAKES**

including Toyota (45 wins), Audi and Porsche (17 each)

**WITH 40 DIFFERENT DRIVERS**  
including Buemi (24 wins), Hartley (21), Nakajima and  
Conway (17 each)

**11**

**MANUFACTURERS'  
WORLD TITLES**

**11**

**DRIVERS'  
TITLES**



# THE MICHELIN PILOT SPORT RANGE FOR QATAR

## HYPERCAR

### All 19 Hypercar prototypes on Michelin tires



The MICHELIN Pilot Sports raced by today's sophisticated Hypercar prototypes was 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 except Peugeot: front: 31/71-18, rear: 31/71-18.



#### SLICKS

**Medium** (yellow): medium compound / dry conditions



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



#### RAIN TIRE

**Rain** (blue): soft compound / wet conditions / versatile

### SLICK ALLOCATIONS

Free Practice	12 tires
Hyperpole	4 tires
Qualifying + Race	32 tires

#### SIZES:

**FRONT: 29/71-18 (PEUGEOT: 31/71/18)**  
**REAR: 34/71-18 (PEUGEOT: 31/71-18)**

Width (cm) / Exterior Diameter (cm) – Interior Diameter (inches)



# HYPERCAR

# MICHELIN PARTNERS

A FIELD OF 19 HYPER PROTOTYPES REPRESENTING 9 MANUFACTURERS

## #2 CADILLAC RACING

Cadillac V-Series.R (LMDh)



E. BAMBER  
 A. LYNN  
 S. BOURDAIS

## #11 ISOTTA FRASCHINI

Isotta Fraschini Tipo6-C (LMH)



A. SERRAVALLE  
 C. BENNET  
 J-K. VERNAY

## #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

## #7 TOYOTA GAZOO RACING

Toyota GR010 Hybrid (LMH)



M. CONWAY  
 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  
 C. LOTT  
 N. NATO

## #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

## #35 ALPINE ENDURANCE TEAM

Alpine A424\* (LMDh)



P-L. CHATIN  
 F. HABSBERG  
 C. MILES

## #36 ALPINE ENDURANCE TEAM

Alpine A424 (LMDh)



N. LAPIERRE  
 M. VAXIVIERE  
 M. SCHUMACHER

## #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

\* Debut FIA WEC Hypercar appearances



**HYPERCAR****MICHELIN PARTNERS**

A FIELD OF 19 HYPER PROTOTYPES REPRESENTING 9 MANUFACTURERS

**#63 LAMBORGHINI IRON LINX**

Lamborghini SC63\* (LMDh)



M. BORTOLOTTI  
 E. MORTARA  
 D. KVYAT

**#83 AF CORSE**

Ferrari 499P (LMDh)



R. KUBICA  
 R. SHWARTZMAN  
 Y. YIFEI

**#93 PEUGEOT TOTALENERGIES**

Peugeot 9X8 (LMH)



M. JENSEN  
 N. MÜLLER  
 J-É. VERGNE

**#94 PEUGEOT TOTALENERGIES**

Peugeot 9X8 (LMH)



P. DI RESTA  
 L. DUVAL  
 S. VANDOORNE

**#99 PROTON COMPETITION**

Porsche 963 (LMDh)



H. TINCKNELL  
 N. JANI  
 J. ANDLAUER

\* Debut FIA WEC Hypercar appearances

**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 X-Trac 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





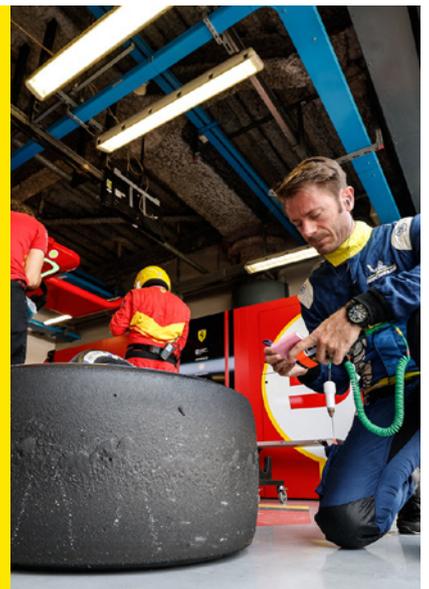
## ***ENDURANCE RACING: AN INNOVATION ACCELERATOR FOR MICHELIN***

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 sustainable raw materials that go into the MICHELIN Pilot Sport endurance racing rain tire 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. In 2023, the Full Wet rain tires actually raced by endurance racing's Hypercar prototypes incorporated 45 percent sustainable materials.

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

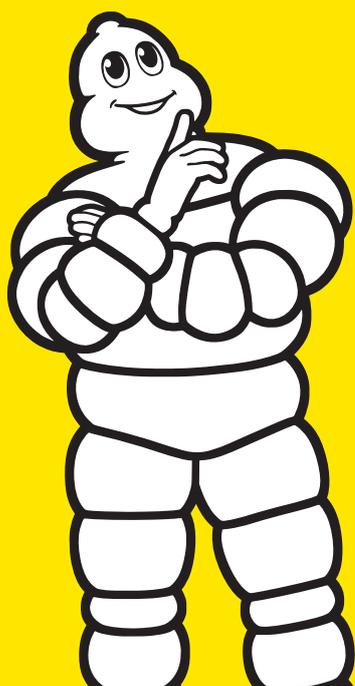


# QATAR

## 111 STATISTIC



The distance from Losail International Circuit (which is hosting the opening round of the 2024 FIA World Endurance Championship on March 2) to Bahrain International Circuit (which will hold the final round exactly eight months later, on November 2) is 111 kilometers as the crow flies.



Qatar is a Persian Gulf state with a population of 2.6 million

Qatar is an 80km-wide/160km-long peninsula (11,500km<sup>2</sup>) and has a border with Saudi Arabia

The population of Doha - Qatar's capital - is 1.5 million

A century ago, the small port of

Doha was chiefly reputed for pearl hunting

Qatar has the world's third-largest natural gas reserves

A significant investor in sport, Qatar hosts a long list of world-class events (motor racing, soccer, tennis, athletics, cycling, swimming, etc.)

## MICHELIN MOTORSPORT AND QATAR

» Michelin has won MotoGP's Qatar Grand Prix 11 times. The 2024 Qatar Airways Qatar Grand Prix takes place the weekend after the FIA WEC race



» The fastest lap at Losail International Circuit on Michelin tires is 1m51.762s (Luca Marini, Ducati)

» Michelin recently monopolized the top four places on the Qatar International Rally, opening round of the 2024 FIA Middle-East Rally Championship

» Michelin and the Groupe Michelin brand BFGoodrich have a successful record on FIA/FIM Rally-Raid World Championship and Baja World Cup events in the Qatari desert

» Qatar's Nasser Al-Attiyah totals five Dakar wins and two rally-raid world titles on Groupe Michelin tires



# 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

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

# 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	Hyperpole*	Qualifying + Race		
		6-hour races	8-hour races	10-hour races*
12	4	18	26	32

(\*) 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.

- For 29/34 tires: a random draw will be made per Competition and tires will be reattributed randomly to each Competitor by the Technical Delegates. These tires must be used in the "Qualifying + Race" allocation. The details will be defined by the WEC Committee.

- For 31/31 tires: a mechanism of collection and reintroduction of the tires will be defined by the WEC Committee.

- 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.

## 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.

**24h**  
LE MANS®



PARTENAIRE PREMIUM

**MICHELIN PILOT SPORT,  
THE WINNING TIRE AT LE MANS  
SINCE 1998!**



LATARGCK

**CONGRATULATIONS TO A. PIER GUIDI, J. CALADO, A. GIOVINAZZI**  
1<sup>ST</sup>, 2023 LE MANS 24 HOURS / #51 FERRARI AF CORSE



**MICHELIN PILOT SPORT**

The winning tire range with 32 victories at Le Mans 24 Hours, including 26 consecutive since 1998!

You too can benefit from the exceptional grip and precision of MICHELIN Pilot Sport tires on the road.

#PerformanceMadeToLast #WeRaceForChange



**MICHELIN**

MICHELIN Pilot Sport (Winner of the Le Mans 24 Hours 2023),  
MICHELIN Pilot Sport 4S, MICHELIN Pilot Sport 5