

PRESS KIT

MICHELIN AND THE 2019 FIA WORLD RALLY CHAMPIONSHIP



MICHELIN

STRIVING FOR VICTORY, TOGETHER!



Matthieu Bonardel, Director, Michelin Motorsport

Collectively surpassing one's limits is an integral part of rallying and, although the drivers and co-drivers are on their own when they fight against the stopwatch, they draw their strength from the work of their respective teams and the performance of their car/tyre package.

To perform to the best of their ability, drivers need to feel at one with their machine and function in perfect harmony with their co-drivers. And to accelerate, brake and corner efficiently, they must be able to sense their car's every movement and response as accurately as possible.

Tyres are a vital part of this process through the way they respond to the instructions that are transmitted via the steering wheel.

While the relative competitiveness of the different cars and driver skill clearly play a predominant role on stages, success is the result of a collective effort.

Analysing driver feedback to finetune settings, anticipating shifting conditions in changeable weather and selecting the ideal tyres for complete loops of stages are challenges that teams face repeatedly during events.

To guide them, Michelin delegates highly-experienced technical advisors to work hand-in-hand with their appointed teams and dialogue with the engineers and crews.

Aware of the value of this analysis work and advice, Michelin replicates the way it operates in the World Rally Championship to provide assistance to drivers at regional and national levels by means of its MyRallyEngineer application.

Other illustrations of the importance Michelin places on the WRC and rallying in general are the broad range of tyres it develops for the sport, the commitment of Michelin Motorsport's staff, the services it provides in association with its network of specialist distributors and the development of advanced digital tools which together form a comprehensive package.

In keeping with tradition, Michelin's 35th WRC campaign kicks off with the 2019 Rallye Monte-Carlo. With new-look line-ups for all the teams, it promises to be yet another close and thrilling season and Michelin is proud of the contribution it makes to the quality of the show enjoyed by fans across the world.

« **TYRES ARE A VITAL PART OF THIS PROCESS THROUGH THE WAY THEY RESPOND TO THE INSTRUCTIONS THAT ARE TRANSMITTED VIA THE STEERING WHEEL** »

page 04

**TYRES CAN AND DO MAKE A REAL DIFFERENCE
ON THE RALLYE MONTE-CARLO!**

page 07

**MICHELIN'S TYRES FOR THE 2019 RALLYE
MONTE-CARLO**

page 10

**WRC2 PRO AND WRC2, TWO EXCITING,
FIERCELY - COMPETITIVE CLASSES**

page 11

**MICHELIN AND THE 2019 RALLYE
MONTE-CARLO**

page 12

**INTERVIEW: ARNAUD RÉMY
(RALLY PROGRAMMES MANAGER, MICHELIN)**

page 13

**THE 2019 FIA WRC CALENDAR – 14 ROUNDS AND A
BRAND NEW VENUE**

TYRES CAN AND DO MAKE A REAL DIFFERENCE ON THE RALLY MONTE-CARLO!

No other round of the FIA World Rally Championship comes up with such big differences in conditions and grip levels or calls for such complex tyre strategies as the Rallye Monte-Carlo. It is for this reason that Michelin provides four different types of tyre for this particular event, compared with two or, more rarely, three for other rounds. Tyres effectively form an integral part of the overall performance package and count amongst the few parameters that can and do make a real difference as a function not only of the teams' strategies but also of the weather and state of the roads which evolve all the time. In the period of up to two hours that elapses between the moment safety crews cover the route and the start of stages, the conditions can shift significantly. Even in clear, relatively mild weather, frost and ice can be a hazard at higher altitudes, so crews practically always carry two spares in order to be able to adapt their strategies in the course of a competitive loop by swapping wheels between two tests.

Tried and tested tyres

Two years ago, the FIA (Fédération Internationale de l'Automobile) introduced new technical regulations which led to the appearance of radically different cars. With power outputs now standing at around 380 horsepower, compared with 330hp previously, these cars featured new aerodynamics which generated greater downforce, as well as active centre differentials which permitted higher cornering speeds. As a result, their tyres needed to withstand even greater forces and, for the start of the 2018 season, Michelin's engineers developed two specific new asphalt tyres: the MICHELIN Pilot Sport S6 and the MICHELIN Pilot Sport SS6. Like Michelin's range of gravel tyres which was also revised in the course of last season, its asphalt tyres were developed to support higher lateral (cornering) and longitudinal (acceleration, braking) forces, while keeping wear rates satisfactorily low despite the bigger demands made of them.





Michelin Motorsport resolved this complex equation thanks to the introduction of new compounds which combined globally superior performance with a 20-percent improvement in resistance to wear. *“The data we collected during the 2018 Rallye Monte-Carlo confirmed our predictions for the MICHELIN Pilot Sport S6 and SS6,”* notes Arnaud Rémy, the manager of Michelin’s rally programmes. *“The Monte Carlo is a particularly challenging rally and a big test for our tyres. On last year’s event, our partners ran every one of the four solutions we made available and, at times, crews even carried three different types with them when leaving service, either on or in their car as spares. In situations like this, our partner teams know they can count on the collaboration and expert advice of Michelin’s technical advisors whose input is particularly crucial on events like the Rallye Monte-Carlo.”*

Working closely with Michelin’s partner teams to perfect tyre strategies

Throughout the season, Michelin’s team advisors play a fundamental role, both on events and

during testing when they prepare for the different types of surface and event profiles encountered in the championship. On rallies, it is the drivers who have the final word when it comes to tyre choices, but Michelin’s team advisors are always on hand to make recommendations with regard to tyre pressures, wear analysis and compounds thanks to their understanding of the ideal temperature and operating windows of each option. Their contribution is consequently particularly vital on rounds like the Rallye Monte-Carlo which can feature varied, contrasting conditions in the course of a single day, and sometimes even on a single stage!

After events, once back at their base in Clermont-Ferrand, France, Michelin’s team advisors share the data and information they collect with their colleagues who use it not only to improve the firm’s competition tyres, but also to contribute to the development of new road tyres. Michelin effectively uses all the types of motorsport in which it is involved, including the FIA World Rally Championship, as full-size proving grounds for its new technologies.

The 2019 Rallye Monte-Carlo... What's new?

The 2019 World Rally Championship promises to be an absolute thriller, with a field of experienced stars all competing on Michelin rubber. The Rallye Monte-Carlo's organisers are known for their innovative formats and this year is no exception since the start ceremony will be held in Gap and not in the Principality of Monaco. It will be followed immediately by a new loop of two stages in the region on Thursday evening. *"We are particularly interested to see how these two new stages go because they take place at night,"* says Arnaud Rémy, the manager of Michelin's rally programmes. *"More surprises then follow on Friday, but Saturday and Sunday's runs are more conventional."*

Although around 40 percent of the route has been revised compared with 2018, the total distance stands at 1,366.43 kilometres which includes 323.83km divided into 16 stages. Friday's menu

features Curbans-Piegut for the first time since 2004, but in the opposite direction, which means the more experienced crews who have kept their notes from back then will not be able to benefit from them. Saturday and Sunday will visit a number of classic tests that have helped to forge the Rallye Monte Carlo's unique reputation, including Saint-Léger les Mélézes, La Bollène-Vésubie and the Col de Turini, which means Michelin's tyres will need to cover a staggering variety of conditions and altitudes. To conclude the rally, the prizegiving ceremony will, for once, not take place at the Prince's Palace since Sunday is the feast day of Saint Devota, the patron saint of the Principality and its royal family. Trophies will instead be presented on Monaco's famous harbourside. Several hundred thousand spectators are expected to flock to the 2019 Rallye Monte-Carlo's stages and to spots like the tiny village of La Bâtie-des-Fonds which has a population of just six when the rally isn't in town!



MICHELIN'S TYRES FOR THE 2019 RALLYE MONTE-CARLO

The WRC crews will be able to choose from a range of four different Michelin tyres during the 2019 Rallye Monte-Carlo

DRY AND DAMP GROUND

- **The MICHELIN Pilot Sport S6**
(S = soft)

It was introduced in 2018 to replace the former MICHELIN Pilot Sport S5 and was developed with the championship's tough asphalt rounds in mind, like the Rallye Monte-Carlo and the Tour de Corse. It features particularly fast warm-up performance at the beginning of stages, plus enhanced grip on damp ground. As it demonstrated on the 2018 Rallye Monte-Carlo, it is perfectly capable of coping with the higher power outputs of the latest-generation WRC cars and the bigger demands they make of their tyres.



- **The MICHELIN Pilot Sport SS6**
(SS = super soft)

It was also introduced at the beginning of 2018 to supersede the former MICHELIN Pilot Sport SS5. Following its successful debut on the 2018 Rallye Monte-Carlo, it is back on the list for this year's event and is designed for mixed conditions, including damp asphalt, slush and icy patches at temperatures close to or lower than 0°C. It is also ideal for greasy or frost-covered roads. It features a softer compound than that of the MICHELIN Pilot Sport S6 but has the same casing.

All of Michelin's partner teams tested these two tyres on their latest-spec cars over the winter break and were positively impressed by their performance.

Size (MICHELIN Pilot Sport S6 and SS6): 235/40R18 (equivalent to 20/65-18)

• The MICHELIN Pilot Alpin A41

It resembles a conventional winter tyre due to its overall profile and siped tread blocks. Its development – which was carried out in parallel with that of the MICHELIN Pilot Alpin 5 road tyre by a team of engineers from Michelin Motorsport and the Michelin Technology Centre in Ladoux, France – used data gleaned in motorsport and stands out as a prime example of Michelin's policy of carrying over technologies developed in different forms of competition to its road tyres. The WRC tyre features a reinforced casing and was designed to withstand the constraints generated by the world's top rally cars on snowy ground, while at the same time delivering outstanding traction, corner control and braking performance.

Size: 215/45R18
(equivalent to 18/65-18)



• The MICHELIN Pilot Alpin A41 CL

It is a studded version of the above tyre. In Nordic countries, studded tyres are commonplace in winter. That is not the case in France, however, where their use is covered by strict legislation. To prevent road surfaces from being damaged during the Rallye Monte-Carlo, the FIA regulations allow the MICHELIN Pilot Alpin A41 CL to be fitted with no more than 200 studs (compared with 384 for a Rally Sweden tyres) and their metal tips emerge just two millimetres from the tread blocks. Each one weighs less than two grams and they are inserted into the tread individually using a technique patented by Michelin.

Size: 215/45R18 (equivalent to 18/65-18)



Tyre allocations for the 2019 Rallye Monte-Carlo

The quantity of tyres each driver can use during the event is capped by the regulations. The figure was reduced by four tyres ahead of the 2018 rally but there have been no changes for this year. The rules specify a total overall allocation, as well as a maximum number of tyres that the drivers can actually run. The quota for the Rallye Monte-Carlo is higher than that enforced at other rounds because

of the wider spectrum of possible conditions and the availability of four different tyre types.

The total allocation per WRC driver on the 2019 Rallye Monte-Carlo is 80 tyres:

- 20 x MICHELIN Pilot Sport S6
- 24 x MICHELIN Pilot Sport SS6
- 12 x MICHELIN Pilot Alpin A41
- 24 x MICHELIN Pilot Alpin A41 CLs (studded)

During the rally, WRC drivers may use no more **39 tyres from this overall allocation.**

WRC2 PRO AND WRC2, TWO EXCITING, FIERCELY - COMPETITIVE CLASSES



WRC2 Pro and WRC2 both involve two-wheel drive cars which are less powerful than their WRC counterparts. While the WRC 2 Pro series features manufacturer entries, the WRC2 class is for privately-run teams only. Numerous WRC drivers have already emerged through the ranks of this fiercely-fought class and Michelin runners have topped the series for the past five years. They even monopolised the top four places in the 2018 standings.

Evidence of the class's appeal to teams and top drivers is the fact that the WRC2 Pro and WRC2 entry lists for the Rallye Monte Carlo are longer than that for the WRC category. Michelin's WRC2 Pro and WRC2 partners use tyres that are commercially available and distributed via the brand's competition tyre sales network.

For dry and damp ground, crews will be able to count on the performance and versatility of the

MICHELIN Pilot Sport R S and MICHELIN Pilot Sport R SS (S = soft compound / SS = super soft). Their size is the same as that of the tyres used by the World Rally Cars (235/40R18, equivalent to 20/65-18). For more wintry conditions, drivers will be able to fit the MICHELIN NA00 (snow) or its studded equivalent, the MICHELIN NA00 CL (ice), as in 2018. Again like the tyres used by WRC competitors, the WRC2 snow/ice tyres are narrower than the clear asphalt tyres (215/45R18, equivalent to 18/65-18).

The allocation for each WRC2 driver on the 2019 Rallye Monte-Carlo is 72 tyres:

- 16 x MICHELIN Pilot Sport R S
- 20 x MICHELIN Pilot Sport R SS
- 12 x MICHELIN NA00
- 24 x MICHELIN NA00 CL

During the rally, WRC2 drivers may use no more **37 tyres from this overall allocation.**

MICHELIN AND THE 2019 RALLYE MONTE-CARLO

Michelin will have 2,682 tyres for the 2019 Rallye Monte-Carlo
(WRC: 1,230 / WRC2: 1,452)

MICHELIN STAFF ON THE EVENT:



MATTHIEU BONARDEL
Director, Michelin Motorsport



OLIVIER VIALLE
Marketing Director,
Michelin Motorsport



ARNAUD RÉMY
Rally Programmes Manager,
Michelin

4

Team
advisors

2

Coordinators

9

Fitters

1

Press officer

A NUMBER OF DEVELOPMENT STAFF AND WEATHER-NOTE STAFF WILL ALSO ATTEND

ARNAUD RÉMY (RALLY PROGRAMMES MANAGER, MICHELIN)



What is your analysis of last season and, more specifically, the introduction of your new gravel tyre range in Finland?

When the FIA WRC was added to my list of duties after Rally Argentina in April 2018, I got to see the difference between our range of asphalt world championship tyres which has two variants, soft and hard, and our gravel range which now features three options and which we obviously prepared ahead of the changes introduced in Finland in July. The addition of a softer compound enabled us to be even more competitive in certain conditions and, even though the regulations still permit a choice of just two compounds for each rally, the availability of three variants means we can offer our partners pairings that are more suited to each event. We have always placed great emphasis on delivering consistent performance and safety, so having to produce tyres that were suitable for muddy Wales in autumn and for bone-dry Sardinia at the beginning of summer meant we had to make choices that prevented us from exploiting certain characteristics of our tyres to the full. Having a

softer option allowed us to provide superior performance with no detriment to the other parameters, while at the same time ensuring the highest possible level of safety for the crews.

Will you be introducing any new tyres in 2019?

The MICHELIN Pilot Sport S6 and SS6 asphalt tyres were introduced at the beginning of 2018 for the Rallye Monte-Carlo and were developed specifically for the conditions associated with this event. Based on the results we achieved then and the data we collected, we have decided to run them again in 2019. Indeed, they are perfectly suited to the current-generation cars and the drivers were swift to praise them. As far as our current gravel tyre range is concerned, it was revised as recently as last July, as I just mentioned. As a result, the MICHELIN LTX Force S6 and M6 were not available in 2018 for Mexico, Portugal, Sardinia or Argentina which all feature very different characteristics. We therefore need to take a close look at the data we brought back from those rounds before we decide whether or not evolutions are required. From what we have observed since the end of last season, however, our work appears to have been in the right direction.

What tends to be the lifespan of a given compound in the WRC? Do you have a set timeframe for renewing your tyres?

We have always been very flexible because there are outside factors that need to be taken into account, such as calendar changes and the technical regulations. This year sees the addition of Rally Chile, for example, while the FIA has reduced the number of tyres that can be used on events by more than one-third in barely five years. We also had to adapt to accompany the introduction of the latest-generation cars two years ago which marked the return of active centre differentials and a power-increase from 330 to 380 horsepower. At the same time, motorsport serves as a laboratory and proving ground for technologies that will go on to feature on our road tyres, or on our next-generation competition tyres. We consequently don't have an established timeframe but anything is possible, or almost, because industrial lead times can be hard to master at times.

CALENDAR

The 2019 FIA World Rally Championship features a calendar of 14 rounds following the addition of Rally Chile



• January 24-27
Rally Monte-Carlo



• June 13-16
Rally d'Italia-Sardegna



• February 14-17
Rally Sweden



• August 1-4
Rally Finland



• March 7-10
Rally Mexico



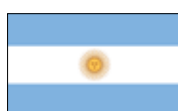
• August 22-25
Rally Deutschland



• March 28-31
Tour de Corse



• September 12-15
Rally Turkey



• April 25-28
Rally Argentina



• October 3-6
Wales Rally GB



• May 9-12
Rally Chile



• October 24-27
Rally de Espana



• May 30-June 2
Rally de Portugal



• November 14-17
Rally Australia

Alessandro Barlozzi - alessandro.barlozzi@michelin.com - Phone: +33.6.42.23.55.93
Didier Laurent - didier@autopressclub.com - Phone: +33.6.75.60.50.62