Michelin has all conditions covered at Valencia’s Circuit

Ricardo Tormo

The weather thrown at those who attended the four-day ABB FIA Formula E World Championship test at Valencia ranged from chilly temperatures and showers, to heavier rain, storms and clearer intervals, with only snow missing from the mix to make it a full-house of conditions in south-east Spain.

There was effectively a little sunshine, too, notably during the Media Day that punctuated the busy long-weekend which provided teams and drivers with a chance to reacquaint themselves with the performance and versatility of Michelin’s Formula E tyre.

Meanwhile, the layout of the circuit itself was faster this time around following the removal of the chicane that the FIA has put into place in previous years. This gave teams the possibility of not only running their respective all-electric single-seaters at sustained high speeds (up to 250 kph for more than six seconds at a time, a duration which is not inconsequential for these cars which are designed to race at street tracks) but also putting their cars through their paces under additional constraints through the many high-speed corners which are quicker than those to be found at the championship’s hallmark city-centre venues.

The teams split their time between testing and qualifying/e-prix simulations, covering several thousand kilometres between them as they took advantage of the pre-season dress rehearsal. Indeed, it was their final opportunity to get in some track-time before their cars are loaded into shipping containers for their journey from the port of Valencia to Santiago, Chile, in time for the 2021 championship’s first two races on January 16 and 17.

“The very least you can say is that we were spoiled as far as the weather went,” reports Jérôme Mondain, the manager of Michelin’s Formula E programme. “The climate may have been far from ideal for an autumn holiday break in Spain, but we couldn’t have wished for a better assortment for testing purposes. The frequently-shifting conditions enabled us to highlight the extraordinary performance range of our MICHELIN Pilot Sport Formula E tyre. For sure, we have come across a very wide variety of conditions in recent seasons, but having all the weather permutations we had at Valencia in the space of just a few days without being forced to switch tyres was a big ‘plus’ for the teams. With a little more than a month remaining until the 2021 world championship kicks off, this test provided all our partners and ourselves with valuable experience.”

The fastest lap of the 24 drivers over the four days was the work of Maximilian Günther (BMW i Andretti), ahead of Mahindra’s Sergio Sette Câmara and Nico Müller. All the cars that compete in the ABB FIA Formula E World Championship race on Michelin tyres.
The MICHELIN Pilot Sport - Timeline

The MICHELIN Pilot Sport is the third-generation of the tyre first developed by the French firm for the FIA Formula E Championship in 2014. It is the only 18-inch tyre to feature in a world class single seater series and the only racing tyre engineered to perform in both wet and dry conditions from the start to the finish of every e-prix, from free practice and qualifying, to the races themselves.

This ability took on even greater importance when mid-race car-swaps were dropped for Season 5 (2017/2018), and again when tyre allocations per race were cut from 10 to just eight covers the following season. Not only does this evolution fit perfectly with Michelin’s stance on the environment inasmuch as fewer tyres need to be made, shipped and recycled than is the case with any other FIA championship, but it also favours Michelin’s policy of carrying over technology from the track to the street, allowing data harvested at races to be channelled into the development of its upcoming road tyres.

Meanwhile, Michelin has shaved some 20 percent off the weight of its Formula E tyre since the championship’s inauguration in 2014. This works out at a saving of nine kilograms per car which, combined with the significantly lower rolling resistance it boasts, contributes to extended range. The drivers will be testing the third-generation MICHELIN Pilot Sport at Valencia this weekend before racing it in 2021.

The FIA benefiting from Michelin's digital expertise

Michelin Track Connect for Formula E allows tyre pressures to be monitored automatically and reliably – whether hot or cold. This new solution addresses a demand expressed by motorsport’s governing body – the FIA (Fédération Internationale de l’Automobile) – which has incorporated its use into Formula E’s regulations. The system also meets a requirement of the teams and the championship’s promoter.

Michelin Track Connect for Formula E uses a Michelin-designed and developed sensor embedded in a specific casing placed inside the MICHELIN Pilot Sport tyres that feature in the series.

The data it collects is transmitted in encrypted form to the FIA and Michelin who are the only recipients. Not only does this guarantee that information remains confidential, but it also allows the FIA to check minimum tyre pressures are adhered to. In addition to saving time, it provides the teams with additional peace of mind and helps to streamline the running of race days.

MICHELIN Pilot Sport sizes

In accordance with the system employed by Michelin Motorsport*, the sizes of the MICHELIN Pilot Sport tyres used in Formula E are 24/64-18 (front) and 27/68-18 (rear). That’s equivalent to 245/40R18 (front) and 305/30R18 (rear) for road legal tyres, i.e. dimensions compatible with production sports cars.

(*) Tread width (cm) / exterior diameter (cm) / rim diameter (inches).