

## Michelin and the World Solar Challenge

Michelin is proud to support the 2013 World Solar Challenge. For Michelin the event is about more than being a sponsor; it is about fostering and supporting the innovation and development of more sustainable technologies.

Damien Hallez Technical Communication for the Michelin Group said that in the 2013 World Solar Challenge, Michelin will be the naming partner of the next generation class in the Challenge – the MICHELIN Cruiser Class.

"Teams competing in the MICHELIN Cruiser Class must enter cars with four wheels and room for a forward-facing passenger, making their vehicles much closer in design to a standard road car," said Mr Hallez.

"The teams will aim to design a car that meets 'real-world' demands, with invention or the innovative application of existing technology being a key component in the judging process."

The class aims to push the teams to develop more relevant technology, and create more practical vehicles, an objective which is closely aligned with Michelin's global objective.

"Ensuring sustainable mobility through innovation, whilst not sacrificing other areas of performance is at the heart of Michelin's mission globally, Mr Hallez continued.

"The MICHELIN Total Performance strategy is what drives Michelin research and development. It requires our engineers to work simultaneously on improving performance factors widely considered to be irreconcilable thanks to Michelin's leading technologies.

"The result of this is tyres that are safe, long lasting, and of particular importance to the World Solar Challenge teams, is that they have a low rolling resistance. By fitting a low rolling resistant tyre to their vehicles, the teams reduce the energy required to move the car allowing them to travel further using less power."

Michelin has been a key part of the World Solar Challenge for many years having designed their first dedicated solar car tyre, the MICHELIN Radial, 17 years ago.

By filling the top three places on the 2011 podium and being the tyre of choice for the whole field, the MICHELIN tyre has proven it delivers the total performance demanded by the winning teams.

To find out more about MICHELIN tyres, visit www.michelin.com.au

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## Further information:

## MICHELIN Radial X 95/80R16 Solar - the latest MICHLEIN solar tyre.

After changes to the rules no longer permitting slick tyres, the original MICHELIN Radial tyre was replaced with the new MICHELIN Radial X. This new tyre features a grooved tread pattern, helping to simultaneously improve safety and performance of solar cars in all weather conditions.

The MICHELIN Radial X offers an extremely low rolling resistance of around 1.3 kg/t. This is equivalent to climb a permanent slope of 0.13% when many passenger car tyres today have rolling resistance equivalent to climb a permanent slope of 1%.

The energy efficiency of the new MICHELIN Radial X tyre is approximately 7 to 8 times better than the average passenger car.

	RRT in kg/t	Equivalent slope in %	Vehicle weight in kg	Km for 1 kWh	Ratio
MICHELIN Radial X tyre	1,3	0,13%	250	1129	7,7
Average PC Tyre	10	1%	250	147	

## MICHELIN energy saving tyres – technology transferred from solar cars to your car.

Over the past decade of using the MICHELIN Radial and MICHELIN Radial X tyre ranges, solar car teams competing in the World Solar Challenge and other competitions around the world have relayed their technical findings including wear rates, temperatures and overall performance back to Michelin.

The more than 6,600 people who work in the Michelin Research & Development department receive this feedback from the teams. This information is then used by the R&D team in the development and enhancement of the passenger car range of MICHELIN tyres.

Michelin introduced its first *green* (energy saving) tyre in 1992 and it has continued to be the industry leader in this technology. Michelin constantly strives to reduce energy (fuel) use, while simultaneously improving other tyre performances such as safety, longevity, silence and comfort.

Over the last 20 years Michelin has doubled the energy efficiency of its tyres while making equally impressive improvements in safety and longevity.

This has been achieved through a number of different innovations but by far the most significant is the integration of silica in the rubber compound. The result of this was a reduction of the tyres rolling resistance by 35%, which in turn reduced fuel consumption by 5% for a vehicle driven at 90 km/h.

The most recent evolution of MICHELIN green tyres offer is the MICHELIN ENERGY XM2 tyre.

This tyre lasts 20% longer\*\* than other leading competitors, and it has specific features which contribute to improved longevity: alternating bridging technology, full depth sipes, and sipes with alternating bridging.

\*\*Compared to the average of leading competitors. Based on internal wear tests and certified by CATARC. Tyre size tested: 195/65R15 91V.











