



Toyota Prius Japanese Ingenuity

"Prius" means to precede. And Toyota's eco-icon has certainly lived up to that name over the last few years. While other car makers didn't take hybrid technology or fuel saving seriously, Toyota gained a lot of knowledge and experience in this field. Eventually other brands did introduce competing models. Therefore it is now time for the all new Prius. Will the new Prius stay ahead?

The Toyota Prius owes its green image to so called "hybrid" technology. A traditional internal combustion engine is especially efficient at constant, high speeds and at long distances. An electric motor is best suited for short distances at slow speeds. A hybrid car combines both to be most efficient in any situation.

The electricity required by the electric motor is generated by the petrol engine. Also, the energy that would normally go to waste when braking or coasting is now re-gained and converted into electricity. So the Prius never has to be plugged in to charge.

Efficiency

For this third generation of the Prius the hybrid-principle has not changed, but it has been refined. The new Prius is more powerful and at the same time even more fuel efficient than before. This is accomplished by reducing weight, improving aerodynamics and where ever possible optimising efficiency.

And the latter has definitely been taken into the extreme. For example, the waterpump has been replaced by an electrical unit; so it can be switched off whenever the situation allows it. The head-lights now use LEDs, because these use less electricity.

An interesting detail: optionally the Prius can be fitted with a solar panel on the roof; which powers a fan that blows cool air into the car while being parked. The air-conditioning can be activated by the remote control, so the cabin is cooled down before entering.





During production the environment also comes first. The batteries are produced locally in Japan as is the car itself (that saves a trip around the world). The plastics used are based on vegetables rather than oil. A lot of recycled materials are used in the Prius.

Interior

Such an innovative car naturally demands a futuristic interior. The test car has been executed in light colours, which enhances the feeling that this is a clean car. The space in the cabin is average for a car this size and that is a compliment: it means that the special technology doesn't take up any extra space. The luggage compartment measures 1,120 litres, which is also average for a car in this segment.



Judging by the price the Prius is very well equipped. Depending on the chosen trim level, some options are available which so far were only available on cars double the price of the Prius.

Some examples are the "head-up display" (the speedometer is projected in the windscreen), "pre-crash safety" (a radar in the front of the car will warn about potentially dangerous

situations) and radar guided cruise-control (automatically keeps a safe distance from the car ahead). Every Prius is fitted with an automatic gearbox as standard.

Driving

Press the start-button and it seems like nothing happens. There's no engine noise, only a wide display below the windscreen which comes to life. In this display the speedometer, several aids to help reduce fuel consumption, and information about the hybrid drive train are shown. The petrol engine will only start when needed; for now the Prius sets off in perfect silence powered by the electric motor.



A computer decides which engine should be used in what situation, but this behaviour can be influenced by three buttons on the centre console.



The fact that the Prius III is fitted with a stronger petrol engine (98 bhp / 142 Nm) than its predecessor, is most evident in the "power" mode. In this mode the Prius instantly reacts to the slightest movement of the throttle and performs very well.

Now the electric and petrol unit work together for maximum performance. The car even feels faster and more eager than what numbers in the brochure (0-62 mph in 10.4 seconds) lead one to believe.

At the same time it is obvious that the Prius is not meant as a performance car. When fitted with the 15 inch rims the steering is very indirect. When cornering it is hard to predict exactly how the car will respond, often requiring several small steering corrections to make a smooth turn. Also, the suspension is so soft that the Prius tends to tilt in every corner. Driving fast can be done, but this eco-model is certainly not meant for it.



When driving quickly in the "power" mode the Prius consumes an average of 5.1 litres per 100 km.

Fuel economy

In the "Eco" mode fuel efficiency comes first. The hybrid drive now works as efficiently as possible, the throttle reacts indirectly and even the airconditioning switches to a power saving programme. In this mode the Prius still offers fair performance.

The indirect response to the throttle and the soft suspension make this the ideal car for a relaxed driving style. One automatically wants to save fuel. On bad road surfaces the special (15") eco-tyres are disturbingly noisy.



When completely adopting the driving style to the eco-modus, one can even realise a better fuel mileage than the 4.0 litre per 100 km Toyota promises. During a test drive on mainly back roads the trip computer briefly showed an average of 3.1 litres per 100 km. After completing a mountain road this increased to 3.8 litres per 100 km.

"EV" mode is available especially for city traffic. This is where the Prius predominantly distinguishes itself from other hybrid cars, which are only fitted with an auxiliary motor. The Toyota Prius is a so called "full hybrid", meaning it can be propelled solely by the electric motor. On a full battery the Prius can do so over a distance of 3 km at a maximum speed of 50 km/h. The fuel consumption then drops to 0.0 litres per 100 km!



Conclusion

Is the Toyota Prius still preceding all others? Yes, and even more than that! Just like the previous Prius models, this third generation is again a giant leap forward and makes most other cars look like antiques.

The hybrid-drive has been improved making the Prius not only significantly faster, but even more fuel efficient than the previous model and main rivals. This starts off with modern technology which makes life with the Prius more pleasant and safer. Compared to other cars that offer similar performance, equal space and the same comfort level, the Prius is sensationally more fuel efficient. This doesn't come at the expense of the driver or the cabin space. There's only one word to describe this: Japanese ingenuity! ■



Specifications

Toyota Prius Spirit

Size and weight

Length	446 cm
Width	175 cm
Height	149 cm
Wheelbase	270 cm
Kerb weight	1370 kg
Trailer	unknown
Trailer - braked	unknown
Fuel capacity	45 l
Luggage space	441/1120 l



Engine and performance

Capacity	1798 cc
Cylinders / valves	4/4
Max power	136 bhp @ 5200 rpm
Max torque	142 Nm @ 4000 rpm
Drive	voorwielen
Acceleration 0 - 62 mph	10.4 secs
Top speed	180 km/h
Average mileage	4 l / 100 km
Mileage urban	4 l / 100 km
Mileage extra urban	3.8 l / 100 km
CO2 emissions	92 gr / km



Price

Price	£ 21,210
Price base model	£ 18,370