

## Body and aerodynamics

# **Wide, lightweight body with magnesium roof and carbon-fibre wings**

The new 911 GT3 RS is built for high-performance driving dynamics. Just one look at the body, with its RS-specific rear wing and its impressive width, illustrates the status of the RS as a driving machine with a clear racing emphasis. The dimensions at the rear axle are the same as those of the 911 Turbo, on which the body is modelled. In contrast, the carbon front wings protrude a little further on each side, by an additional 25 millimetres. A characteristic feature of the RS model is the wheel arch vents, which are protected by slats at the top. These reduce the overpressure generated by the turning wheels, and therefore increase the downforce at the front axle. Two “NACA” inlets in the bonnet improve the ventilation of the brake system without negatively affecting the drag coefficient. The front spoiler lip, which has been widened further compared to its predecessor, combines with the wider side skirts to increase the surface area of the vehicle’s underbody, thereby increasing downforce. Overall this results in more stable driving behaviour.

The 911 GT3 RS is one of the few road-approved sports cars with aerodynamics that can be adjusted in the same manner as with a racing car. In order to improve performance on fast bends, the fixed rear wing, with its wing supports made from forged aluminium and painted in black, can be moved into a performance position. In this position, 40 per cent more downforce is generated than with the predecessor model.

## **Weight savings through intelligent mix of materials**

The seventh generation of the 911 GT3 RS is another perfect example of lightweight construction. Despite boasting a number of additional performance-enhancing features compared with the predecessor model, with a lowest-possible weight of 1,430 kilograms, this new high-performance sports car is one of the lightest vehicles in the competitive environment. The aluminium-steel composite construction keeps the body weight low, while at the same time ensuring the required vehicle rigidity. As in the 911 GT3, the front and rear sections are made from lightweight polyurethane with hollow glass spheres and carbon-fibre elements. The high-tech material is not only particularly stable, but also extremely light. CFRP is used in the contoured front lid, the front wings and the rear lid, as well as in a wide range of components in the interior.

The roof is made from magnesium and, like the front lid, features expansive contouring a few millimetres deep. This contouring is not simply a visually distinctive feature for the lightweight components, but also increases the rigidity of the material. The rear window and rear side windows are made from lightweight glass. The material is similar in weight to polycarbonate, but offers much better scratch and break resistance as well as significantly lower bulging at high speeds.

On the race track in particular, repeated acceleration and braking manoeuvres place a strain on the vehicle components. It therefore follows that a lighter vehicle not only brakes and accelerates more effectively, but also places a lower load on the powertrain and brakes. This is particularly advantageous if more than two or three fast laps are planned. Every kilogram off the weight of the vehicle also counts in terms of lateral dynamics. The lighter the vehicle, the less mass there is to push outwards on bends. The cornering forces to be transferred by the tyres are lower, and the potential cornering speeds are higher.

## **Interior design for the race track**

The interior of the new 911 GT3 RS is designed with functionality and good ergonomics for the race track in mind. The sports steering wheel can be adjusted axially and vertically by up to 40 millimetres, allowing optimum customisation to the driver's specific needs. The steering wheel rim made of black Alcantara® is not only a visual highlight, but also ensures optimum grip. The yellow marking at the twelve o'clock position shows the driver the current steering angle on the race track. The large gearshift paddles with their clearly defined pressure point ensure precise shifting operations, and give the driver the confidence that the correct gear has been selected with their clean feedback.

As standard, the driver and passenger are seated in full bucket seats made from CFRP and featuring a carbon-weave finish and optimum lateral support on the race track. The seat centre is covered with black, perforated Alcantara®; the headrests are embroidered with a "GT3 RS" logo in Silver Grey. If the customer selects the adaptive Sports seats Plus, the seat centre section is made from Black Alcantara without perforation like for all interior design configurations.

### **Clubsport package available at no extra charge**

As with the 911 GT3 and the 911 GT2 RS, a Clubsport package is also available for the new 911 GT3 RS. It includes a rear roll cage with DMSB certification (from Germany's motor racing governing body) and a battery disconnect switch. The package also includes a motorsport manual fire extinguisher and a six-point seat belt, both of which already meet the future requirements of the International Automobile Federation (FIA – Fédération Internationale de l'Automobile).

### **Optional: Weissach package and magnesium wheels**

With the optional Weissach package and the optional forged magnesium wheels, a further weight reduction of around 30 kilograms can be achieved compared with a 911 GT3 RS equipped with a Clubsport package. With this option, the rear wing, the front lid, the roof and the upper shell of the SportDesign exterior mirrors are made from carbon-fibre reinforced plastic (CFRP) in a carbon-weave finish. The anti-roll bars and coupling rods at the front and rear are also made from CFRP. The unmistakable trademark of the Weissach package is the large "PORSCHE" lettering on the rear wing.

The interior is dominated by the bolted titanium roll cage, which is approximately twelve kilograms lighter than the steel roll cage featured in the Clubsport package. Even small details have been optimised to minimise weight, such as the ultra-light gearshift paddles and the steering wheel cover made from CFRP, both of which come in a carbon-weave finish. Even the floor carpet has been reduced. In the interior, the Weissach package logo on the headrests and the badge on the cup holder trim also indicate that this 911 GT3 RS has been optimised as far as possible in terms of its weight.

The 911 GT3 RS comes with PCM as standard, including online navigation, voice control and mobile phone preparation, as well as Porsche Connect Plus with access to a wide range of services. PCM can be deselected at no extra charge to facilitate further weight reduction. In this case, a storage compartment is included in the central console instead.

### **Training with virtual support: Porsche Track Precision app**

The standard Porsche Track Precision app allows the detailed recording, display and

analysis of driving data on a smartphone. Lap times can automatically be stopped and compared on a smartphone using PCM or manually using the operating lever of the optional Chrono package. A lap trigger, available via Porsche Tequipment as an option, enables even more precise lap timing.

Once the vehicle is out on the track, the app displays the driving dynamics directly on the smartphone. In addition to sector and lap times, deviations from the set reference lap are also displayed. Graphical analysis of the driving data and a video analysis help the driver to continuously improve driving performance. Recordings, lap profiles and driver profiles can be managed and shared directly via a smartphone.

### **Optional: Chrono package with performance display**

Porsche also offers an optional Chrono package for the 911 GT3 RS. In addition to the analogue and digital stopwatch in the dashboard, it includes functions for the display, storage and analysis of measured lap times, as well as a performance display. This provides the driver with information about the time and distance of the current lap, as well as the previous lap time and the times achieved so far. The fastest lap and the remaining fuel range are also displayed. Any lap routes can be recorded and reference laps can also be set.