

Lightweight Stabilizer from ContiTech made of Ultramid[®] in the new Gran Turismo Porsche Panamera

Case Study

Together with ContiTech Vibration Control BASF has developed the innovative stabilizer for the new Porsche Panamera. The high-performance integrated component is made of the high-strength Ultramid[®] A3WG7 CR and a functionally optimized NR+ natural rubber mixture. It reliably withstands engine torques up to 650 Nm while providing very good sound absorption and secure mounting of the engine in the vehicle. Compared to a metal component with comparable functionality, the sports car manufacturer is able to achieve weight savings of 35 percent.

With a power of up to 500 HP, the Panamera is the Porsche among the four-doored Premium-Gran Turismo. Such high-performance vehicles present special challenges when it comes to engine mounts. For this innovative automobile, Porsche selected an equally novel material solution. Since the stabilizer is visible when the hood is open, ContiTech Vibration Control worked in close cooperation with Porsche's design department to give it a visually appealing textured surface.

The challenge was to satisfy the criteria for a certain functionality and load-bearing capability within specified spatial constraints. After a few iterations, BASF had a component concept that was converted directly into a construction near to series quality. No additional testing of prototypes was required and optimization cycles were reduced to a minimum, which translates into enormous time and cost savings in automobile development.

