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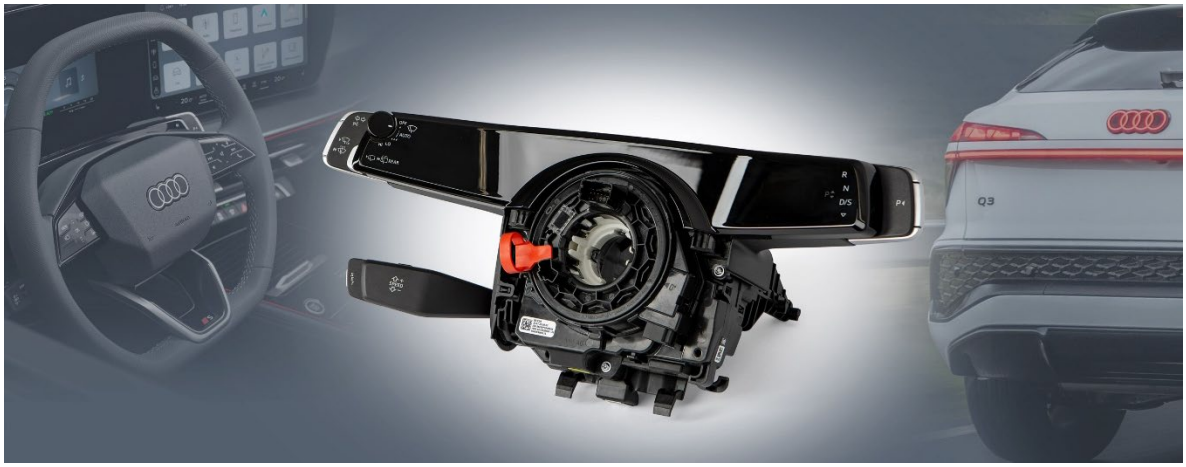
PRESS INFORMATION

Innovation at the steering wheel: Audi Q3 steering column module relies on EMS high-performance polyamides

As the automotive industry evolves at a rapid pace, the demands placed on modern vehicle components continue to increase. Especially interior applications require materials that combine outstanding functionality, safety, and aesthetics. The new steering column module by KOSTAL Automobil Elektrik GmbH & Co. KG for the Audi Q3 is a prime example of how EMS high-performance polyamides are setting new benchmarks in weight reduction, cost savings and functional integration.



Outstanding material performance for demanding system solutions
The steering column module, a key driver interface within the vehicle, benefits significantly from the innovative capabilities of EMS-GRIVORY high-performance polyamides. By using glass fiber-reinforced Grilon grades, demanding mechanical requirements and intricate geometries can be combined within a single component. The excellent processability of these high-performance polyamides ensures consistent quality in high-volume production while enabling efficient manufacturing and reducing overall system costs.

For the highly stressed structural components of the module, the design incorporates Grivory GV, a high-performance polymer. This semi-crystalline polyamide with partially aromatic molecular structures, reinforced with a high glass fiber content, offers exceptional stiffness and strength. It forms the robust backbone of the module and is distinguished by its outstanding dimensional stability, which is essential for the precision and long-term durability of the components.

In addition to its excellent mechanical performance, the material provides a superior surface finish, enabling precise component quality and an attractive tactile feel. Thanks to its outstanding mechanical properties, which make Grivory GV an ideal material for demanding metal replacement applications, the steering column module achieves maximum reliability and load-bearing capability.

Maximum operational reliability and cost efficiency

The high-performance polyamides developed by EMS-GRIVORY offer not only superior functionality but also significant economic and sustainability benefits. The Grilon grades used for visible components and housing parts feature excellent surface quality and outstanding UV resistance. This ensures long-term color stability and resistance to sunlight exposure within the vehicle interior. Even under demanding thermal and mechanical operating conditions, the components maintain their performance reliably, contributing to maximum operational safety throughout the vehicle's service life.

The Audi Q3 steering column module is an outstanding example of the successful application of EMS-GRIVORY high-performance polyamides in the automotive industry. Once again, EMS demonstrates how intelligent material selection and consistent functional integration create innovative solutions that not only meet the increasing demands for safety and comfort but also deliver significant advantages in terms of weight reduction, cost efficiency and design freedom.

These developments further reinforce EMS-GRIVORY's position as a leading partner for pioneering and sustainable mobility solutions of the future.

Functional integration in the smallest of spaces: EMS materials enable compact, highly precise steering column modules.

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