Bosch fuel tank pressure sensors made of Ultramid®

Case Study

The Robert Bosch GmbH applies BASF's Ultramid® T KR 4355 G7 to produce fuel tank pressure sensors: The partially aromatic polyamide (PA 6/6T) fulfills the specific requirements for materials used in electronic housings.

Today, any material that comes into contact with modern fuels has to be able to resist not only gasoline but also water and alcohols such as methanol and ethanol. Ultramid® T holds these properties and moreover can withstand the presence of zinc chloride: At the underbody area the sensor may come into contact with this zinc salt, that can be formed at the zinc plated car body due to splash water. Following studies conducted by Bosch and tests on the ozone resistance carried out at BASF's applications technology laboratories Bosch's developers chose Ultramid® T, a material that is also highly dimensionally stable and that absorbs hardly any water.

The participants in this global project included Bosch's sensor and ignition development departments in Germany and in the United States, the central research division in Waiblingen and the production division in Eisenach as well as BASF's project managers in Germany and in the United States. The project also involved the car manufacturer.