Filigree steering-angle sensors made by Bosch using Ultradur® High Speed

Case Study

The steering-angle sensor that Bosch produces for various renowned international car manufacturers is now being made of Ultradur® High Speed, BASF's very easy-flowing PBT. This plastic allows injection molders not only to markedly shorten the cycle times, but also to make their components with an even more filigree design. The steering-angle sensor plays an integral role in the safety of vehicles and provides the electronic stability program (ESP) with information about the position of the steering wheel. This is why this part and its electronics are located directly on the steering column.

The latest generation: thin-walled and laser-writable

Following the first sensor generation made of Ultradur® B4300 G4 LS High Speed (20% glass fibers), Bosch recently went into serial production with its newly developed sensor for the latest generation of automobiles. In view of the ever-growing requirements being made in terms of space, the new steering-angle sensor had to have even thinner walls and an even more filigree construction than its predecessor. When standard PBT is used, only one-third of the intricate injection-molding tool can be filled. In contrast, with the easy-flowing Ultradur® High Speed, whose good processing properties are due to BASF's specially devised nanotechnology, the sensor can be manufactured without any problems. Moreover, the steering-angle sensor made of this plastic can be laser-written with a high degree of contrast.