

Connectors made of Ultradur® for the use in the interior of vehicles

Case Study

The electronics company Molex Elektronik GmbH of Ettlingen, Germany, a subsidiary of Molex Automotive, is using Ultradur® High Speed B4300 – BASF's PBT (polybutylene terephthalate) with improved flow properties – for the housings of a new generation of 16-contact connectors. These so-called Sicma-hybrid connectors are employed for fuse and relay boxes in the interior of vehicles.

This particularly easy-flowing material yields components having very thin walls and the filling procedure during injection molding is done without unduly stressing the material. "This ensures that the well-balanced mechanical properties of the material are retained. As a result, a housing made of Ultradur® High Speed can accommodate cables with large diameters better than had been possible with the PBT used up until now," explains Günther Kaminsky, product manager at Molex in Ettlingen. The production of this new generation of connectors calls for a combination of the requisite strength and good elasticity. "And on top of it all, this has to be done at competitive component costs since we are aiming for an annual production volume of more than 5 million connectors."

"Based on our latest findings, we see yet another advantage in Ultradur® High Speed. The desired color intensity can be achieved with less color batch than is the case with standard PBT, so customers can achieve even greater savings," explains Dr. Christelle Staller, Global Key Account Manager at BASF Engineering Plastics. At its plant in Košice, Slovakia, Molex itself dyes the material reinforced with 20 percent glass fibers.

Molex Elektronik GmbH of Ettlingen belongs to Molex Automotive Europe, a subsidiary of Molex Incorporated. This American company is headquartered in Lisle, Illinois and, with its almost 28,000 employees, ranks among the three largest manufacturers of industrial connectors and connector modules.

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