Engine oil pan

Application information

Industry        Automotive/Transportation

Processor       POLYTEC PLASTICS Germany GmbH & Co KG

Processing Technology Injection molding

Material        Durethan AKV35H2.0 901510 - PA66-GF35 - LANXESS Deutschland GmbH

Description

Compared with steel sheet or die cast aluminum, polyamides provide tremendous opportunities for reducing weight in the production of automotive engine oil pans. This is demonstrated by the 1.8 and 2.0-liter turbocharged gasoline engines used in the Audi A3, A4 and A6 as well as in the Volkswagen Passat for example. Their engine oil pans are made of Durethan AKV 35 H2.0, and weigh roughly one kilogram less than a steel component solution.

Durethan AKV 35 H2.0 is filled with 35 percent glass fibers. Despite this reinforcement, it can be used to produce low-warpage oil pans whose flanges remain tight. The plastic's high toughness, stiffness and strength contribute to the ability of the oil pans to safely withstand stone impacts and bottoming out on a high curb. The thermal stabilization of the polyamide ensures the high dimensional stability of the components under typical sustained thermal loads.

Source of Information
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