

Case Study

Air intake hose made of Durethan® BKV 315 Z



- Material:** Durethan® BKV 315 Z
OEM: Daimler AG
Molder: Woco, Bad Soden, Germany
Industry: Automotive

The name Woco stands for innovative automotive engineering with a focus on vibration technology, acoustics and vehicle comfort. As a worldwide primary developer for the automotive industry, the company is a market leader.

In the area of engine acoustic systems, the air intake hose (see picture) was developed for Mercedes-Benz. It is used in their 6-cylinder engine to transport clean air from the air filter to the turbocharger.

This engine part has to meet demanding requirements, which is why Woco decided in favor of the LANXESS plastic Durethan BKV 315 Z. This grade of polyamide is a high viscosity, branched PA 6 with 15 % glass fibers. It has a significantly higher melt strength than comparable linear (unbranched) polyamides.

LANXESS formulated this polyamide grade – which allows complex components to be produced in large sizes – specifically for extrusion applications, such as extrusion blow molding. Its increased melt strength enables the customer to extrude tubes of the necessary length and weight. At the same time, it also improves the plastic's weldability in comparison to standard polyamides.

Additional benefits to point out are:

- Very good resistance to heat and hot air, even over long periods of time
- Easy to process, even by 3D blow molding
- High impact strength

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