

Case Study

Thermofomed engine bonnet made from Durethan® BKV 315 Z H2.0



Fig. Engine bonnet

France-based [Technoplast Industries](#) is a specialist in the thermoforming of industrial components for automotives, commercial vehicle, agricultural machineries, as well as for the conveying and lifting equipment sector. Their services range from the production of extruded sheet through thermoforming to the manufacture of finished components.

One example is the engine bonnet shown in the illustration. It consists of a thermofomed outer sheet of ABS/PMMA to impart gloss and color, and a substructure, also thermofomed, which ensures the mechanical function of the bonnet. Despite its size, the 1 m wide x 2 m long x 0.5 m high engine bonnet is lightweight and highly dimensionally stable.

Material: Durethan® BKV 315 Z H2.0

Manufacturer: Technoplast Industries

The substructure is manufactured from Durethan® BKV 315 Z H2.0, a thermoplastic developed especially for extrusion applications such as blow molding and sheet extrusion. This is a high-viscosity, crosslinked polyamide 6 reinforced with 15 % glass fiber.

The product has the following key properties in its favor:

- Good bondability
- Thermoformability
- High strength and stiffness
- High long-term service temperature
- High heat resistance
- Good resistance to greases, oils and fuels

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