

Case Study

Flame-retardant Pocan[®] for fan cowlings and impellers



Figure 1 Fan cowlings and impellers

[ebm-papst Group](#) which was formed through the merger of ebm, PAPST and mvl, all of which are established companies with a long tradition, currently produces a unique range of motor and fan products. It operates in the fields of drive technology, automotive engineering, office technology, electronics, domestic appliances, ventilation, air-conditioning and refrigeration engineering and telecommunications, plus a great deal more. The product groups of this globally positioned world market leader include blowers, fans, motors, pumps and ventilators.

ebm-papst fans have set the standard in electronic cooling for many years. Compact, quiet and highly efficient, they adapt to the cooling situation and can be intelligently networked in with an appliance's logic system. They can be supplied for all voltages and in all standard sizes. They include, for instance the DC RL 65-21/12 radial fan with an electronically commutated external rotor motor and fully integrated commutation electronics. The specially-shaped spiral cowling means that the RL 65-21/12 makes very

Material: Flame-retardant Pocan[®]

Molder: ebm-papst, Germany

Industry: Electrical/Electronics

little noise, while permitting a volume flow of 56 m³/h. For volume flows of 13.5 m³/h, there is the DC 412 H axial fan – similarly with an electronically commutated external rotor motor and fully integrated commutation electronics.

The cowling materials and the fan impellers are subject to particularly stringent requirements. The operating voltages and the many different fields of application involved make it necessary to employ flame-retardant plastics. Alongside the requirements placed on flame retardance, a good stiffness-to-toughness ratio is also essential. In addition, the material must allow a large number of finished-part geometries to be produced with a high dimensional stability.

ebm-papst has therefore opted for the Pocan[®] product group from LANXESS as its plastic of choice. The extensive range of flame-retardant Pocan[®] grades fulfils the different requirements imposed by the varied fields of use, which range from automotive to household electronics.



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