

application profile: carbon canister



In the automotive industry, you need PA66 products that perform to a higher standard. Vydyne® resins and compounds help you get the most out of every part you produce. For under-the-hood applications, Vydyne products deliver superior chemical and heat resistance. For exterior and interior components, Vydyne offers versatile, reliable and customizable resins. Our quality and consistency make the difference in your production efficiency.

Products Used: 47H, 41H, 22HSP, 21SPF Benefits: Weldability • Chemical Resistance • Superior Flow • Burst Resistance • Dimensional Stability

Application Description

Below is a carbon canister used by a major North American automaker. These carbon canisters and others of similar design are used in all current production vehicles. The detail photo shows the Vydyne part in the carbon canister

The Challenge

This carbon canister is molded in 47H, offering superior flow. When lower molding pressures are used, the cores will not move. The ease of mold filling helps minimize the impact of knit lines and allows the parts to have outstanding burst strength. The superior weld ability of the product ensures a good seal in the canister. The inherent fuel resistance of Vydyne PA66 is a major benefit in this application.

The Vydyne Difference

Ascend's Vydyne PA66 is ideal for this application due to its superior burst resistance and chemical resistance. The high flow of the product allows the complex carbon canisters to be molded with ease. This product also allows the canister to be sealed via simple welding operations. The Ascend automotive team uses mold flow analysis and years of automotive experience to create optimal parts for Ford,® General Motors,® Chrysler® and Toyota.®

For more information, see your Ascend representative or visit www.ascendmaterials.com.

47H, 41H, 22HSP, 21SPF						
Property*	Method	Units	47H	41H	22HSP	21SPF
Density	ISO 1183	g/cm ³	1.10	1.08	1.14	1.14
Tensile Stress	ISO 527-2	MPa	60	50	83	85
Flexural Modulus	ISO 178	MPa	2,300	1,750	2,900	3,000
Notched Izod	ISO 180	kJ/m²	18	78	5.5	5.5
DTUL @ 1.8 MPa	ISO 75-2/A	°C	63	58	70	74

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