

application profile: fan shroud



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: R860

Benefits: Stiffness • Vibration Minimization • Dimensional Stability • Temperature Resistance • Chemical Resistance

Application Description

The fan shroud shown is for an electric cooling fan made with R860. This shroud supports both the fan and the electric motor for the cooling fan. This can be used for engine-driven fans as well.

The Challenge

The fan shroud is a critical component in the cooling system. The stiffness, dimensional stability and temperature resistance



are critical in maintaining the positioning of the fan to the radiator. The natural damping characteristics of Vydyne PA66 help eliminate vibration that leads to NVH issues. Also, the chemical resistance of PA66 eliminates problems with typical automotive chemicals.

The Vydyne Difference

Ascend's Vydyne R860 is ideal for this application because of its superior stiffness and temperature resistance. Alternately, Vydyne R860 brings to the application an optimal balance of stiffness, damping characteristics and chemical resistance. And Vydyne PA66 resins can be more cost effective than competing resin systems. The Ascend automotive team used mold flow analysis and years of fan shroud experience to create optimal parts for Ford,® General Motors® and Chrysler.®

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

R860			
Property	Method	Units	DAM
Density	ISO 1183	g/cm³	1.47
Tensile Stress	ISO 527-2	MPa	120
Flexural Modulus	ISO 178	MPa	9,000
Notched Izod	ISO 180	kJ/m²	5.6
DTUL @ 1.8 MPa	ISO 75-2/A	°C	215

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