



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: R533H

Benefits: Strength • Chemical Resistance • Superior Mold Flow • Temperature Resistance • Stiffness

Application Description

This oil module and filter is currently used in four- and six-cylinder European gasoline engines. It controls the flow of oil throughout the engine and to the oil filter. The oil filter is designed to have a replaceable element for lower overall cost and enhanced environmental performance.

The Challenge

The oil module and filter must perform in a very severe environment of high temperature and oil contact. The original concept was to use a high temperature engineering resin such as PPS or PEEK. After further investigation, it was found PA66 could offer the needed temperature performance and oil resistance. Testing and production vehicles have proven the concept is successful.



The Vydyne Difference

Ascend's Vydyne R533H is ideal for this application due to its superior temperature resistance and chemical resistance. The high flow of the product allows complex oil passages to be molded with ease. This part also provides a significant weight reduction over the aluminum design. The Ascend automotive team uses mold flow analysis and years of automotive experience to create optimal parts for Ford®, General Motors®, Chrysler®, Toyota® and VW®.

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

R533H			
Property	Method	Units	DAM
Density	ISO 1183	g/cm ³	1.4
Tensile Stress	ISO 527-2	MPa	204
Flexural Modulus	ISO 178	MPa	9,700
Notched Izod	ISO 180	kJ/m ²	12
DTUL @ 1.8 MPa	ISO 75-2/A	°C	250