



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 transmission cover is currently used on a six-speed automatic transmission developed for two major North American OEMs. The transmission cover seals the transmission from oil leakage and water or dirt intrusion. Additionally, it has provisions for a fluid level dip stick and the transmission electrical control harness.

The Challenge

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



The Vydyne Difference

Ascend's Vydyne R533H is ideal for this application because of its superior temperature resistance and chemical resistance. The high flow of the product allows the complex design features to be molded with ease. This part also provided 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® and Toyota®.

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

R533H			
Property	Method	Units	DAM
Specific Gravity	ISO 1183	none	1.4
Tensile Strength	ISO 527	MPa	204
Flexural Modulus	ISO 178	MPa	9,700
Notched Izod	ISO 180	kJ/m ²	12
DTUL @ 1.8 MPa	ISO 75	°C	250