



In the automotive industry, you need PA66 products that perform to a higher standard. Vydine® resins and compounds help you get the most out of every part you produce. For under-the-hood applications, Vydine products deliver superior chemical and heat resistance. For exterior and interior components, Vydine 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 cylinder head cover is currently in production on an I-4 engine. The cover seals the engine from oil leaks and water or dirt intrusion. Additionally, it has provisions for oil fill and the introduction of EGR gases.

**The Challenge**

Cylinder head covers must perform in a very severe environment of high temperature and oil contact. The critical issue is maintaining a good seal.

R533H provides the strength that allows this seal to occur. The superior mold flow of R533H allows the part to fill without molded-in stress, and additional design features can be easily incorporated.



**The Vydine Difference**

Ascend's Vydine R533H is ideal for this application because of its superior temperature resistance and chemical resistance. The high flow of the product allows complex design features 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® and Toyota®.

**For more information, see your Ascend representative or visit [www.ascendmaterials.com](http://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 <sup>2</sup>	12
DTUL @ 1.8 MPa	ISO 75	°C	250