



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, R530H

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

### Application Description

The transmission filter is currently used in all automatic transmissions in variations of the design shown. The transmission filter acts as both a pick up and a filter for the transmissions fluid. These units are designed to have an extended service life of 30,000 to 100,000 miles before replacement.

### The Challenge

Transmission filters must perform in a very severe environment of high temperature and transmission fluid contact. Original designs used stamped steel that was crimped and/or welded.

After further investigation, it was found the PA66 could offer the needed temperature performance and transmission fluid resistance. Years of 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 the complex oil passages to be molded with ease. This part also provided a significant weight reduction over the stamped steel 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, R530H				
Property*	Method	Units	R533H	R530H
Specific Gravity	ISO 1183	none	1.4	1.37
Tensile Strength	ISO 527	MPa	204	195
Flexural Modulus	ISO 178	MPa	9,700	9,100
Notched Izod	ISO 180	kJ/m <sup>2</sup>	12	11
DTUL @ 1.8 MPa	ISO 75	°C	250	245

\*Dry as molded (DAM)