



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, R535H

**Benefits:** Weld ability • Surface Appearance • Superior Mold Flow • Burst Resistance • Dimensional Stability

### **Application Description**

Pictured below is the air intake manifold for a domestic 1.4-liter engine. This engine is used in many small European cars.

### **The Challenge**

The air intake manifold is a critical component in the performance of an engine. For superior part performance, the manifold must weld properly, offer high burst resistance and be dimensionally stable.

### **The Vydyne Difference**

Ascend's Vydyne R535H is ideal for this application because of its superior strength and surface appearance. Additionally, Vydyne R535H is designed to enhance vibration welding. Vydyne R533H is well suited to lost-core applications where it is more cost effective than other solutions. The Ascend automotive team used mold flow analysis, finite element analysis and years of experience to create optimal parts for a many global automakers.

***For more information, see your Ascend representative or visit [www.ascendmaterials.com](http://www.ascendmaterials.com).***

### **R533H, R530H, R535H**

Property*	Method	Units	R533H	R530H	R535H
Specific Gravity	ISO 1183	none	1.4	1.37	1.42
Tensile Strength	ISO 527	MPa	204	195	210
Flexural Modulus	ISO 178	MPa	9,700	9,100	9,900
Notched Izod	ISO 180	kJ/m <sup>2</sup>	12	11	12.3
DTUL @ 1.8 MPa	ISO 75	C	250	245	250

\*Dry as molded (DAM)

