



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: Temperature Resistance • Dimensional Stability
• Hydrolysis Resistance • Superior Strength • Stiffness

Application Description

Pictured below is an engine coolant inlet used in several North American 2.4L I-4 vehicle engines. The coolant inlet is the conduit between the coolant hose and engine.

The Challenge

Coolant inlets must be molded from materials with excellent hydrolysis resistance, temperature resistance, strength, stiffness and dimensional stability. The testing and evaluation of coolant inlets is very demanding, since part failure can lead to vehicle immobility and engine damage. The coolant inlet must also provide a consistent seal that maintains its integrity through years of service.

The Vydyne Difference

The Ascend automotive team worked with a major North American OEM to ensure a flawless performance of this critical under-the-hood powertrain component. Using Vydyne R533H ensured that this piece created a perfect seal with the engine that would maintain integrity throughout years of service. Vydyne R533H is backed by years of use in vehicles from companies such as General Motors®, Ford® and Chrysler®, and meets all material and end-use requirements. Vydyne resins are used for many other thermal-system applications as well.

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