

H series



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: R530H, R535H, R550H

Benefits: Stiffness • Vibration Minimization • Dimensional Stability • Temperature Resistance • Chemical Resistance

Application Description

Charge air coolers play a prominent role in new engine designs by serving as an important subsystem in turbocharged engines. High-temperature air at the inlet places significant demands on the material used to route this air into the intercooler. Ascend's newest grades of glass-filled material for this application demonstrate high levels of resistance to property degradation after long-term exposure to this challenging environment.

R530H, R535H, R550H

Property*	Method	Units	R530H	R535H	R550H
Specific Gravity	ISO 1183	none	1.37	1.41	1.58
Tensile Strength	ISO 527-2	MPa	195	210	240
Flexural Modulus	ISO 178	MPa	9,600	10,500	16,000
Notched Izod	ISO 180	kJ/m ²	12	12	17
DTUL @ 1.8 MPa	ISO 75-2/A	°C	250	250	255

*Dry as molded (DAM)

The Challenge

The initial properties of stiffness, chemical resistance and dimensional stability are critical for charge air coolers, along with property retention after heat aging. The Vydyne PA66 H series of heat-resistant glass-filled products ensures the superior material performance of your parts.

The Vydyne Difference

Vydyne H series products are offered in a variety of glass content levels from 30 to 50%, and are all heat-stabilized to minimize oxidative degradation of the polymer when exposed to elevated temperatures in service. These grades provide > 50% retention of physical properties under exposure to long-term heat (3,000 hrs at 170°C). Also, Vydyne H series products have excellent knit line strength and fatigue resistance, which is essential for cycle testing with temperature and pressure fluctuations.



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