

## HT 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:** R530HT, R535HT, R550HT

**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.

#### R530HT, R535HT, R550HT

Property*	Method	Units	R530HT	R535HT	R550HT
Specific Gravity	ISO 1183	none	1.37	1.41	1.58
Tensile Strength	ISO 527-2	MPa	185	200	235
Flexural Modulus	ISO 178	MPa	8,800	10,200	15,500
Notched Izod	ISO 180	kJ/m <sup>2</sup>	11	14	17
DTUL @ 1.8 MPa	ISO 75-2/A	°C	248	240	240

\*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 HT series of heat-resistant glass-filled products ensures the superior material performance of your parts.

### The Vydyne Difference

Ascend's Vydyne HT series of glass-filled products are ideal for demanding charge air cooler inlet applications because of their enhanced ability to retain 50% of

their physical properties after 3,000 hours exposure at 190°C. These grades provide the same benefits of superior strength and surface appearance as our H series products.

The Ascend automotive team is ready to leverage computer analysis

and years of experience to work with you to create optimal parts for your automotive customers.

