ASCEND PERFORMANCE MATERIALS

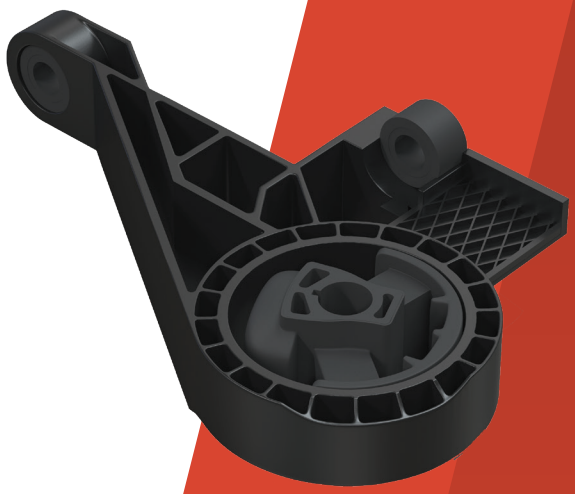
vydyne pa66

AUTOMOTIVE APPLICATION PROFILE

Components in Engine Mounts

We understand that in the automotive industry, you need reliable materials that perform to a higher standard. Ascend offers a comprehensive portfolio of engineered plastics for challenging automotive applications. We work with our customers to achieve the very best from our products. That's why we offer a worldwide support network of application specialists and technical experts. Our material knowledge and expertise in automotive systems can help you improve part performance and reduce material usage and cycle times.

Products Used: **R433H, R535H, R540H, R550H**



Application Description

Engine mounts are a critical component in the automotive powertrain. They secure the position of the engine and gearbox in the vehicle and at the same time decouple the engine from the vehicle body to avoid the propagation of noise and vibrations.

A good balance of stiffness, strength and resistance to creep and fatigue under engine compartment conditions is required for the rigid brackets.

The Vydyne Difference

Ascend's Vydyne® PA66 is ideal for this application because of its superior strength, stiffness and fatigue resistance. Its internal damping supports component function and allows for optimized design of the rubber element.

Benefits

- Stiffness
- Fatigue resistance
- Internal damping
- Light weight
- Temperature resistance
- Chemical resistance
- Corrosion resistance

Metal Replacement

Vydyne R550H is an excellent alternative to aluminum because of its higher internal damping, light weight. Engine mount brackets or torque rods made with Vydyne are lighter and transfer less forces between engine and vehicle body. They enhance comfort and longevity of the involved components.

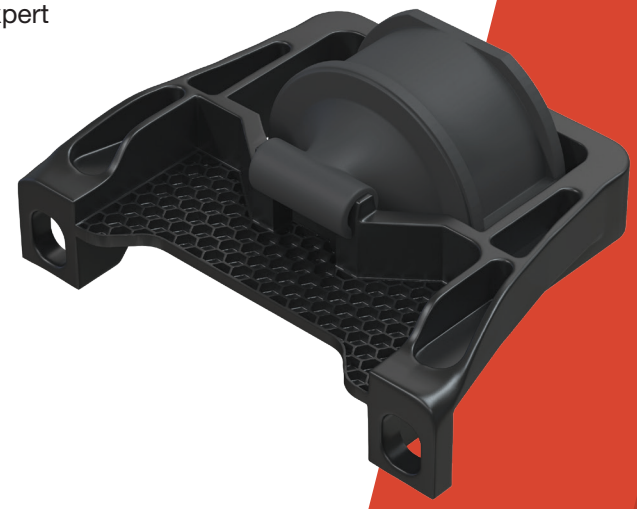
Product Properties

R433H, R535H, R540H, R550H						
Property*	Test Method	Units	R433H	R535H	R540H	R550H
Density	ISO 1183	g/cm^3	1.33	1.41	1.46	1.58
Tensile Strength	ISO 527-2	MPa	147	210	220	240
Flexural Modulus	ISO 178	MPa	9,300	10,500	12,300	16,000
Notched Izod	ISO 180	kJ/m^2	21	12	14	17
DTUL @ 1.8 MPa	ISO 75-2/A	°C	245	250	252	255

*Dry as molded (DAM)

Application Development and Support

Our automotive applications team relies on years of industry experience and CAE support for tooling to help you optimize your system design. For more information, contact our expert applications specialists or visit **ascendmaterials.com**.



Ascend Performance Materials is the world's largest fully integrated producer of nylon 6,6 resin. We manufacture and reliably supply world-class plastics, fibers and chemicals that are used in thousands of everyday applications such as car parts, electronics and cable ties.

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