
E-MOBILITY APPLICATION PROFILE

Auxiliary Air Heaters

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 usage and cycle times.

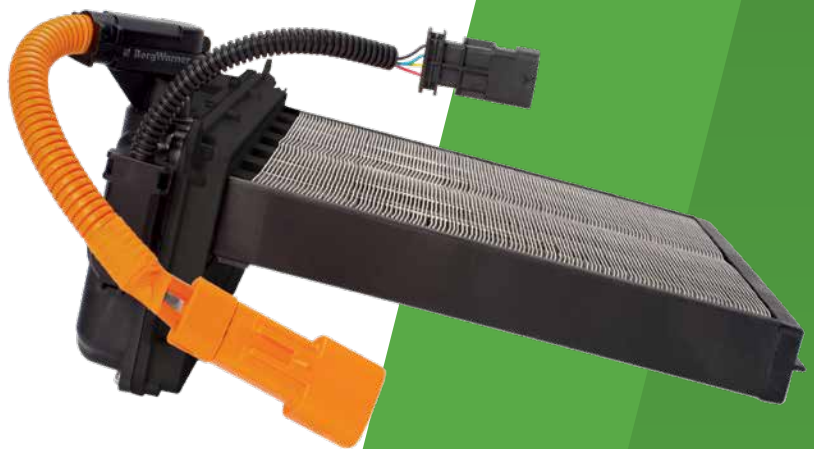
Products Used: Vydyne[®] R535J, ECO525K

Application Description

Auxiliary heaters in hybrid and electric vehicles play an important role in managing operating temperatures as well as regulating passenger comfort. Air heaters are part of the HVAC system and deliver warm air to the vehicle cabin. Auxiliary heaters must withstand temperature extremes while delivering air to their systems.

Benefits

- Stiffness and strength
- Light weight
- Temperature resistance
- Chemical resistance
- Design flexibility



The Vydine Difference

Ascend's Vydine® PA66 is ideal for this application because of its balance of good property retention at elevated temperatures and throughout aging. A broad range of flame retardant grades also qualifies Vydine as an excellent option for the electrical components and housing of the control unit.

Product Properties

Vydine R535J, ECO525K				
Property	Test Method	Units	Vydine R535J	Vydine ECO525K
Density	ISO 1183	g/cm ³	1.41	1.4
Tensile strength	ISO527-2	MPa	201	122
Flexural modulus	ISO 178	MPa	10500	9100
Notched Izod	ISO 180	kJ/m ²	12	8.1
Flammability	UL-94		HB	UL-94 V0 @ 0.2 mm
Special			<ul style="list-style-type: none">Electrically neutral heat stabilizer	<ul style="list-style-type: none">Hal-free FRElectrically neutral heat stabilizer



Ascend Performance Materials makes high-performance materials for everyday essentials and new technologies. Our focus is on improving quality of life and inspiring a better tomorrow through innovation. We make the plastics, fabrics, fibers and chemicals used to make safer vehicles, cleaner energy, better medical devices, smarter appliances and longer-lasting apparel and consumer goods. We are committed to safety, sustainability and the success of our customers and our communities.

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