

# application profile: bearing cage retainer



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: 21SPC, 21SPF, 22HSP

Benefits: Stiffness • Vibration Minimization • Dimensional Stability • Temperature Resistance • Chemical Resistance
• Knit-line Strength

## **Application Description**

Vydyne neat grades are ideal candidates for use in highperformance, long-lasting bearing applications. With superior friction and wear properties, grades such as 21SPC and 22HSP are widely used and provide dependable performance in critical underhood applications.

# **The Challenge**

The stiffness, dimensional stability and temperature resistance of the bearing cage retainer are critical. Vydyne PA66 has natural damping characteristics to help eliminate vibration that leads to NVH issues. Vydyne PA66 is also chemical resistant, eliminating problems with automotive chemicals.

21SPC, 21SPF, 22HSP					
Property*	Method	Units	21SPC	21SPF	22HSP
Density	ISO 1183	g/cm <sup>3</sup>	1.14	1.14	1.14
Tensile Stress	ISO 527-2	MPa	81	85	83
Flexural Modulus	ISO 178	MPa	2,900	3,000	2,900
Notched Izod	ISO 180	kJ/m²	6.0	5.5	5.5
DTUL @ 1.8 MPa	ISO 75-2/A	°C	72	74	70

## \*Dry as molded (DAM)

# **The Vydyne Difference**

Ascend offers a wide range of products that work well in bearing cage retainers. Vydyne 21SPF and 21SPC are general-purpose grades. Vydyne 22HSP is a heat-stabilized and lubricated grade to provide designers with a good balance of mechanical properties and chemical resistance. The Ascend automotive team has worked with many engineers globally to select the right products to meet their specific requirements. These materials have gained the required OEM approvals to allow use in all regions of the world.

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



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