

# application profile: shifter module

In the automotive industry, you need PA66 products that perform to a higher standard. Vydyne<sup>®</sup> 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.

Product Used: R533H (Black), R543H (Natural)
Benefits: Wear Resistance • Lubricity • Superior Strength
• Easy to Mold • Stiffness

### **Application Description**

Pictured below is the shifter module for a major, North American sport utility vehicle (SUV). R533H is used for the module base and lower transfer case lever. R543H is used for the transmission selector lever.



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#### The Challenge

The shifter module must be strong and stiff enough to support the forces required to engage the transmission. Since the levers must move across the module and have built-in detent features, the material used must have good lubricity and wear resistance.

## **The Vydyne Difference**

Ascend's Vydyne R533H is ideal for the module base and lower transfer case lever application because of its balance of strength, stiffness, and the wear properties needed to work with moving levers. Vydyne R543H is used in the transmission selector lever to provide the extra strength needed for engagement.

The Ascend Automotive team relies on years of experience to create optimal parts for Ford,<sup>®</sup> as well as for General Motors<sup>®</sup> and Chrysler.<sup>®</sup>

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

R543H, R533H				
Property*	Method	Units	R543H	R533H
Density	ISO 1183	g/cm <sup>3</sup>	1.5	1.4
Tensile Stress	ISO 527-2	MPa	235	204
Flexural Modulus	ISO 178	MPa	12,400	9,700
Notched Izod	ISO 180	kJ/m <sup>2</sup>	14.4	12
DTUL @ 1.8 MPa	ISO 75-2/A	°C	250	250

\*Dry as molded (DAM)