

Vydyne® R435H BK0757

polyamide 66



Vydyne R435H BK0757, is designed to reinforce downgauged steel and aluminum used in vehicle body-in-white (BIW) structures, helping reduce weight without sacrificing safety or comfort.

R435H BK0757 has improved energy absorption over traditional glass-filled PA66, helping reduce noise, vibration and harshness (NVH) and absorbing impact energy from crashes. Using the new grade in the BIW structure reinforces sheet metal, helping manufacturers shave substantial weight and improve efficiency. Trends in lightweight and NVH are becoming even more paramount with the growth of Electric Vehicles. R435H BK0757 has excellent properties to support applications where this will be of prime importance such as battery frames and housings.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Heat Stabilizer	• Lubricant	
Features	• Balanced Stiffness/Toughness	• Chemical Resistant	• Gasoline Resistant
	• Good Dimensional Stability	• Good Heat Resistance	• Good Rigidity
	• Good Tensile Strength	• Good Toughness	• Lubricated
	• Oil Resistant	• Solvent Resistant	
Agency Rating	• ASTM, D4066 PA016G35	• ASTM, D6779 PA016G35	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.39	-	g/cm ³	ISO 1183
Water Absorption				ISO 62
Equilibrium, 23°C, 50% RH	1.38	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	11300	-	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	173	-	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.9	-	%	ISO 527-2
Flexural Modulus (23°C)	10100	-	MPa	ISO 178
Flexural Strength (23°C)	260	-	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	18	-	kJ/m ²	
-40°C	14	-	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	93	-	kJ/m ²	

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-40°C	98	-	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	17	-	kJ/m²	
-40°C	13	-	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	248	-	°C	
0.45 MPa, Unannealed	260	-	°C	
Melting Temperature	262	*	°C	ISO 11357-3

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4	h
Rear Temperature	280 - 310	°C
Middle Temperature	280 - 310	°C
Front Temperature	280 - 310	°C
Nozzle temperature	280 - 310	°C
Processing (Melt) Temperature	285 - 305	°C
Mold Temperature	65 - 95	°C

