Vydyne® R525H BK0201

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne R525H BK0201 is a general purpose, 25% glass-filled, heat-stabilized, high viscosity PA66 based resin designed for injection molding applications. R525H BK0201 offers standard flow with a black surface finish and maintains the excellent resistance typical of PA66 in chemicals, machine and motor oils, solvents, and gasoline.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Features	• Antifreeze Resistant • Chemical Resistant • Fatigue Resistant	• Gasoline Resistant • Good Flow • Heat Stabilized	• Hydrolysis Resistant • Lubricated • Solvent Resistant
Agency Ratings	• ASTM D4066 PA012G25	• ASTM D6779 PA012G25	
Automotive Specifications	• GM GMW16270P-PA66-GF25 • GM GMW3038P-PA66-GF25H • GM GMW3038P-PA66-GF25J	• SCHAEFFLER S131001 • STELLANTIS 01994_15_00060 • TOYOTA TSM 5603G Color: Class 2B, Rev 5	• VALEO NVB 15009 Color: Class 1 • VALEO NVB 15009-2
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF25		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.32	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.3	--	%	
Flow : 73°F, 0.0787 in	0.50	--	%	
Water Absorption (24 hr, 73°F)	1.4	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.9	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.25E+6	798000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	25200	17000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.0	7.0	%	ISO 527-2
Flexural Modulus (73°F)	1.17E+6	899000	psi	ISO 178
Flexural Stress (73°F)	33600	23200	psi	ISO 178
Poisson's Ratio (73°F)	0.40	--		ISO 527-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	3.8	3.8	ft·lb/in²	
-22°F	3.8	3.8	ft·lb/in²	
73°F	4.3	4.3	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	25	25	ft·lb/in²	
-22°F	27	27	ft·lb/in²	
73°F	28	33	ft·lb/in²	
Notched Izod Impact Strength				ISO 180/1A

-40°F	3.3	3.8	ft·lb/in²	
-22°F	3.3	3.8	ft·lb/in²	
73°F	3.8	4.3	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	498	500	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	471	466	°F	ISO 75-2/A
Melting Temperature	504	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.4E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	4.2E-5	--	in/in/°F	ISO 11359-2
RTI Elec				UL 746B
0.030 in	284	--	°F	
0.06 in	284	--	°F	
0.12 in	284	--	°F	
RTI Imp				UL 746B
0.030 in	248	--	°F	
0.06 in	248	--	°F	
0.12 in	248	--	°F	
RTI Str				UL 746B
0.030 in	257	--	°F	
0.06 in	284	--	°F	
0.12 in	284	--	°F	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Volume Resistivity (0.0394 in)	1.0E+13	--	ohms·cm	IEC 60093
Electric Strength (0.0394 in)	510	--	V/mil	IEC 60243-1
Arc Resistance (0.118 in)	PLC 6	--		ASTM D495
High Amp Arc Ignition (HAI)				UL 746A
0.030 in	PLC 0	--		
0.06 in	PLC 0	--		
0.12 in	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR) (0.118 in)	PLC 1	--		UL 746A
Hot-wire Ignition (HWI)				UL 746A
0.016 in	PLC 4	--		
0.030 in	PLC 3	--		
0.06 in	PLC 4	--		
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate (0.0787 in)	0.0	--	in/min	ISO 3795
Flame Rating				UL 94
0.030 in	HB	--		
0.06 in	HB	--		
0.12 in	HB	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.016 in	1250	--	°F	
0.030 in	1250	--	°F	
0.06 in	1250	--	°F	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.016 in	1290	--	°F	
0.030 in	1290	--	°F	
0.06 in	1290	--	°F	

Processing Information

Injection	**Dry**	**Unit**
Drying Temperature	176	°F
Drying Time	4.0	hr
Rear Temperature	536 to 590	°F
Middle Temperature	536 to 590	°F
Front Temperature	536 to 590	°F
Nozzle Temperature	536 to 590	°F
Processing (Melt) Temp	545 to 581	°F
ature	149 to 203	°F