Vydyne® R535J NT0665

polyamide 66

Vydyne R535J NT0665 is a natural, 35% glass-filled, high-flow PA66 resin that is heat-stabilized with an electrically neutral heat stabilizer. It is specially designed for electrical applications requiring high dielectric strength, low conductivity and corrosion resistance.

General

Additive	• Heat Stabilizer	• Lubricant	
Features	• Chemical Resistant • Good Electrical Properties • High Strength • Organic Heat Stabilized	• Corrosion Resistant • Good Mold Release • Laser Markable	• Good Colorability • High Flow • Lubricated
Agency Rating	• ASTM, D4066 PA012G35 • EU, 10/2011	• ASTM, D6779 PA012G35 • EU, 2023/2006	• EC, 1935/2004 • FDA, 21 CFR 177.1500
Automotive Specifications	• Aptiv M5600V		
UL File Number	• E70062		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	dry	cond.	Unit	Test Standard
Density	1.41	-	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.9	*	%	
Flow : 23°C, 2.00 mm	0.4	*	%	
Water Absorption				ISO 62
23°C, 24 hr	0.8	*	%	
Equilibrium, 23°C, 50% RH	1.6	*	%	

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	11600	-	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	209	-	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.8	-	%	ISO 527-2
Flexural Modulus (23°C)	10500	-	MPa	ISO 178
Flexural Strength (23°C)	300	-	MPa	ISO 178
Poisson's Ratio (23°C)	0.4			ISO 527-2

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Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	12	-	kJ/m²	
-30°C	11	-	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	79	-	kJ/m²	
-30°C	68	-	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	12	-	kJ/m²	
-30°C	11	-	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	251	-	°C	
0.45 MPa, Unannealed	261	-	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	21	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	106	*	E-6/K	
RTI Elec				UL 746
0.750 mm	120		°C	
1.50 mm	120		°C	
3.00 mm	120		°C	
RTI Imp				UL 746
0.750 mm	100		°C	
1.50mm	100		°C	
3.00 mm	105		°C	
RTI Str				UL 746
0.750 mm	125		°C	
1.50 mm	125		°C	
3.00 mm	125		°C	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	1E12	-	Ohm*m	IEC 60093
Dielectric Strength (1.00 mm)	20	-	kV/mm	IEC 60243
Arc Resistance (3.00 mm)	5			ASTM D 495
Comparative Tracking Index (3.00 mm)	600		V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746

0.750 mm	PLC 0		
1.50 mm	PLC 0		
3.00 mm	PLC 0		
High Voltage Arc Tracking Rate (HVTR), 3.00 mm	PLC 1		UL 746
Hot-wire Ignition (HWI)			UL 746
0.750 mm	PLC 4		
1.50 mm	PLC 4		
3.00 mm	PLC 3		

Flammability	Value	Unit	Test Standard
Flammability			UL 94
0.750 mm	HB		
1.50 mm	HB		
3.00 mm	HB		
Glow Wire Flammability Index			IEC 60695-2-12
0.750 mm	750	°C	
1.50 mm	725	°C	
3.00 mm	800	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.750 mm	775	°C	
1.50 mm	725	°C	
3.00 mm	750	°C	

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

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