Vydyne® R550H NT0755

polyamide 66

Vydyne R550H NT0755 is a general purpose 50% glass-filled PA66 based resin designed for injection molding applications. R550H NT0755 is specifically designed to provided high stiffness and maximum retention of physical properties when exposed to heat and/or hydrolytic environments.

General

Additive	• Heat Stabilizer	• Lubricant	
Features	• General Purpose	• Good Flow	• Good Heat Resistance
	• Good Processability	• Good Stiffness	• High Strength
	• High Tensile Strength	• Lubricated	
UL File Number	• E70062		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	dry	cond.	Unit	Test Standard
Density	1.60	-	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.2	*	%	
Flow : 23°C, 2.00 mm	0.6	*	%	
Water Absorption, 23°C, 24 hr	1.16	*	%	ISO 62

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	17600	14300	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	254	205	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.3	3	%	ISO 527-2
Flexural Modulus (23°C)	16500	12200	MPa	ISO 178
Flexural Strength (23°C)	380	261	MPa	ISO 178
Poisson's Ratio (23°C)	0.36			ISO 527-2

Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	16	19	kJ/m²	
-30°C	16	16	kJ/m²	
-40°C	16	16	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	100	111	kJ/m²	
-30°C	100	102	kJ/m²	
-40°C	98	105	kJ/m²	

Notched Izod Impact Strength				ISO 180/1A
+23°C	15	17	kJ/m²	
-30°C	16	16	kJ/m²	
-40°C	16	15	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	252	250	°C	
0.45 MPa, Unannealed	261	259	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	13	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	63	*	E-6/K	
RTI Elec				UL 746
0.750 mm	140		°C	
1.50 mm	140		°C	
3.00 mm	140		°C	
RTI Imp				UL 746
0.750 mm	130		°C	
1.50mm	130		°C	
3.00 mm	130		°C	
RTI Str				UL 746
0.750 mm	140		°C	
1.50 mm	140		°C	
3.00 mm	140		°C	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	35	24	kV/mm	IEC 60243
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 3			
3.00 mm	PLC 4			

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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	675	°C	
1.50 mm	675	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.750 mm	700	°C	
1.50 mm	700	°C	
3.00 mm	750	°C	

North America
+1 888 927 2363

Europe
+32 10 608 600

Asia
+86 21 2315 0888

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