

Vydyne® ECO515H NT0867

polyamide 66



Vydyne ECO515H NT0867 is a non-halogenated flame retardant, 15% glass fiber, heat stabilized PA66. ECO515H NT0867 has improved stiffness and strength.

General

Regional Availability	• North America		
Additive	• Flame Retarding Agent	• Heat Stabilizer	• Lubricant
Features	• Corrosion Resistant	• Electrical Corrosion Resistant	• Fast Molding Cycle
	• Flame Retardant	• Good Colorability	• Good Dimensional Stability
	• Good Electrical Properties	• Good Processability	• Good Strength
	• Heat Aging Resistant	• Heat Stabilized	• High Flow
	• Low Density	• Lubricated	
Agency Rating	• ASTM, D4066 PA0120A2227	• ASTM, D6779 PA0120A2227	• ISO, 1043 PA66 GF15 FR(40)
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	dry	cond.	Unit	Test Standard
Density	1.32	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.8	*	%	
Flow : 23°C, 2.00 mm	0.4	*	%	
Water Absorption				ISO 62
23°C, 24 hr	2.1	*	%	
Equilibrium, 23°C, 50% RH	1.7	*	%	

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	6700	4500	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	100	66	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.2	5.5	%	ISO 527-2
Flexural Modulus (23°C)	6700	4300	MPa	ISO 178
Flexural Strength (23°C)	160	83	MPa	ISO 178
Poisson's Ratio (23°C)	0.36	-		ISO 527-2

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Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	8.3	10	kJ/m²	
-30°C	6.2	5.9	kJ/m²	
-40°C	6.1	5.9	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	54	59	kJ/m²	
-30°C	53	49	kJ/m²	
-40°C	53	49	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	7.2	9.7	kJ/m²	
-30°C	7.2	6.4	kJ/m²	
-40°C	6.3	6.3	kJ/m²	
Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	222	216	°C	
0.45 MPa, Unannealed	250	247	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	30	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	87	*	E-6/K	
RTI Elec				UL 746
0.200 mm	140		°C	
0.400 mm	140		°C	
0.750 mm	140		°C	
1.50 mm	140		°C	
3.00 mm	140		°C	
RTI Imp				UL 746
0.200 mm	110		°C	
0.400 mm	115		°C	
0.750 mm	130		°C	
1.50mm	130		°C	
3.00 mm	140		°C	
RTI Str				UL 746
0.200 mm	120		°C	
0.400 mm	125		°C	
0.750 mm	140		°C	
1.50 mm	140		°C	

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3.00 mm	150	°C		
Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	30	27	kV/mm	IEC 60243
High Amp Arc Ignition (HAI)				UL 746
0.400 mm	PLC 0		-	
0.750 mm	PLC 0		-	
1.50 mm	PLC 0		-	
3.00 mm	PLC 0		-	
Hot-wire Ignition (HWI)				UL 746
0.750 mm	PLC 0		-	
1.50 mm	PLC 0		-	
3.00 mm	PLC 0		-	
Flammability	Value			Test Standard
Flammability				UL 94
0.200 mm	V-0			
0.400 mm	V-0			
0.750 mm	V-0			
1.50 mm	V-0			
3.00 mm	V-0			
Flammability, 5V				UL 94
1.50 mm	5VA			
3.00 mm	5VA			
Injection	Value		Unit	
Drying Temperature	80		°C	
Drying Time	4 - 6		h	
Suggested Max Regrind	50		%	
Suggested Max Moisture	≤ 0.2		%	
Rear Temperature	275 - 300		°C	
Middle Temperature	275 - 300		°C	
Front Temperature	275 - 300		°C	
Nozzle temperature	275 - 300		°C	
Processing (Melt) Temperature	275 - 300		°C	
Mold Temperature	60 - 120		°C	

