

Starflam® 315J NT0725

Ascend Performance Materials Operations LLC - *Polyamide 66/6 Copolymer*

General Information

Product Description

Starflam 315J NT0725 (formerly Vydyne® ECO315J NT0725) is a non-halogenated, unreinforced, flame-retardant PA66/6 copolymer compound designed with high ductility (20% elongation), high comparative tracking index (CTI), and low corrosion for improved electrical contact performance. It is stabilized to provide heat stability up to 125°C for 1,000 hours in a dry environment. It exhibits excellent toughness and ductility, allowing increased flexibility in product design needed for living hinges and snap fits. 315J NT0725 provides enhanced flow and is lubricated for machine feed and easy mold release.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Flame Retardant	• Heat Stabilizer	• Lubricant
Features	• Crack Resistant • Ductile • Flame Retardant • Good Mold Release	• Good Toughness • Halogen Free • Heat Stabilized • Heat Stabilized - Organic	• High Elongation • Low Density • Lubricated
UL File Number	• E70062		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66/6 FR		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.16	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.4	--	%	
Flow : 73°F, 0.0787 in	1.2	--	%	
Water Absorption (24 hr, 73°F)	0.80	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	464000	174000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	10900	6090	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	3.5	23	%	ISO 527-2
Tensile Strain (Break, 73°F)	22	140	%	ISO 527-2
Flexural Modulus (73°F)	464000	232000	psi	ISO 178
Flexural Stress (73°F)	13300	6530	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
-22°F	1.9	1.9	ft·lb/in ²	
73°F	2.4	7.1	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	No Break	No Break		
73°F	No Break	No Break		
Notched Izod Impact Strength				ISO 180/1A
-22°F	2.4	2.9	ft·lb/in ²	
73°F	2.4	6.2	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	437	--	°F	ISO 75-2/B



Deflection Temperature Under Load (264 psi, Unannealed)	149	--	°F	ISO 75-2/A
Melting Temperature	471	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	6.1E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	6.1E-5	--	in/in/°F	ISO 11359-2
RTI Elec				UL 746B
0.016 in	266	--	°F	
0.030 in	266	--	°F	
0.06 in	266	--	°F	
0.12 in	266	--	°F	
RTI Imp				UL 746B
0.016 in	149	--	°F	
0.030 in	149	--	°F	
0.06 in	185	--	°F	
0.12 in	185	--	°F	
RTI Str				UL 746B
0.016 in	212	--	°F	
0.030 in	212	--	°F	
0.06 in	212	--	°F	
0.12 in	230	--	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (0.0394 in)	1.0E+11	--	ohms·cm	IEC 60093
Electric Strength (0.0394 in)	330	--	V/mil	IEC 60243-1
Arc Resistance (0.118 in)	PLC 5	--		ASTM D495
Comparative Tracking Index (0.118 in)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746A
0.016 in	PLC 0	--		
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 4	--		
0.06 in	PLC 4	--		
0.12 in	PLC 3	--		
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.016 in	V-0	--		
0.030 in	V-0	--		
0.06 in	V-0	--		
0.12 in	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.016 in	1760	--	°F	
0.030 in	1760	--	°F	
0.06 in	1760	--	°F	
0.12 in	1760	--	°F	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.016 in	1610	--	°F	
0.030 in	1610	--	°F	
0.06 in	1430	--	°F	
0.12 in	1340	--	°F	
Oxygen Index	29	--	%	ISO 4589-2

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	4.0	hr
Rear Temperature	464 to 518	°F
Temperature	464 to 518	°F
Temperature	464 to 518	°F
Temperature	464 to 518	°F
(Melt) Temp	482 to 518	°F

