

Starflam® 315J BK0707

Ascend Performance Materials Operations LLC - Polyamide 66/6 Copolymer

General Information

Product Description

Starflam 315J BK0707 (formerly Vydyn® ECO315J BK0707) is a non-halogenated, unfilled, flame-retardant PA66/6 copolymer with excellent toughness and ductility. 315J BK0707 is also 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	• Black		
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)	471000	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	226000	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	2.6	--	ft·lb/in ²	
73°F	2.6	--	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	No Break	--		
73°F	No Break	--		
Notched Izod Impact Strength (73°F)	2.9	--	ft·lb/in ²	ISO 180/1A
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
Suggested Max Regrind	50	%
Rear Temperature	464 to 518	°F
Middle Temperature	464 to 518	°F
Front Temperature	464 to 518	°F
Nozzle Temperature	464 to 518	°F
Processing (Melt) Temp	482 to 518	°F
Temperature	149 to 203	°F

