

Starflam® 315J BK0707

copolyamide 66/6



Starflam 315J BK0707 (formerly Vydyne® 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

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Flame Retarding Agent	• Heat Stabilizer	• Lubricant
Features	• Crack Resistant • Good Mold Release • High Elongation • Organic Heat Stabilized	• Ductile • Good Toughness • Low Density	• Flame Retardant • Halogen Content, None • Lubricated
UL File Number	• E70062		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.16	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.4	*	%	
Flow : 23°C, 2.00 mm	1.2	*	%	
Water Absorption				ISO 62
23°C, 24 hr	0.8	*	%	
Equilibrium, 23°C, 50% RH	2.3	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	3250	1200	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	75	42	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	3.5	23	%	ISO 527-2
Tensile Strain (Break, 23°C)	22	140	%	ISO 527-2
Flexural Modulus (23°C)	3200	1560	MPa	ISO 178
Flexural Strength (23°C)	92	45	MPa	ISO 178
Poisson's Ratio (23°C)	0.4		-	ISO 527-2

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	5.4	-	kJ/m ²	
-30°C	5.4	-	kJ/m ²	

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Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	-	kJ/m ²	
-30°C	N	-	kJ/m ²	
Notched Izod Impact Strength, +23°C	6	-	kJ/m ²	ISO 180/1A

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	65	-	°C	
0.45 MPa, Unannealed	225	-	°C	
Melting Temperature	244	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	110	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	110	*	E-6/K	
RTI Elec				UL 746
0.400 mm	130		°C	
0.750 mm	130		°C	
1.50 mm	130		°C	
3.00 mm	130		°C	
RTI Imp				UL 746
0.400 mm	65		°C	
0.750 mm	65		°C	
1.50mm	85		°C	
3.00 mm	85		°C	
RTI Str				UL 746
0.400 mm	100		°C	
0.750 mm	100		°C	
1.50 mm	100		°C	
3.00 mm	110		°C	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	1E9	-	Ohm*m	IEC 60093
Dielectric Strength (1.00 mm)	13	-	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
0.400 mm	PLC 0		-	
0.750 mm	PLC 0		-	
1.50 mm	PLC 0		-	
3.00 mm	PLC 0		-	

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

Flammability	dry	cond.	Unit	Test Standard
Flammability				UL 94
0.400 mm	V-0		-	
0.750 mm	V-0		-	
1.50 mm	V-0		-	
3.00 mm	V-0		-	
Glow Wire Flammability Index				IEC 60695-2-12
0.400 mm	960		°C	
0.750 mm	960		°C	
1.50 mm	960		°C	
3.00 mm	960		°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.400 mm	875		°C	
0.750 mm	875		°C	
1.50 mm	775		°C	
3.00 mm	725		°C	
Oxygen index	29	*	%	EN ISO 4589-2

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4	h
Suggested Max Regrind	50	%
Rear Temperature	240 - 270	°C
Middle Temperature	240 - 270	°C
Front Temperature	240 - 270	°C
Nozzle temperature	240 - 270	°C
Processing (Melt) Temperature	250 - 270	°C
Mold Temperature	65 - 95	°C