

Starflam® 366 BK13

polyamide 66

Starflam 366 BK13 (formerly Vydyne® ECO366 BK13) is a non-halogenated, unreinforced, flame-retardant PA66 compound designed with high comparative tracking index (CTI) and low corrosion for improved electrical contact performance. It has superior flow properties to assist in filling thin-walled, intricate parts with reduced warpage and reduced cycle time. It is lubricated for machine feed and easy mold release. It is f1 rated in black.

General

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

Physical

	dry	cond.	Unit	Test Standard
Density	1.17	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.2	*	%	
Flow : 23°C, 2.00 mm	0.9	*	%	
Water Absorption				ISO 62
23°C, 24 hr	0.8	*	%	
Equilibrium, 23°C, 50% RH	2.3	*	%	
Outdoor Suitability	f1		-	UL 746C

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Stress (Yield, 23°C)	83	58	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	5	6	%	ISO 527-2
Flexural Modulus (23°C)	3900	1350	MPa	ISO 178
Flexural Strength (23°C)	107	39	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	3.4	-	kJ/m ²	
-30°C	3.7	-	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU

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+23°C	75	-	kJ/m²	
-30°C	78	-	kJ/m²	
Notched Izod Impact Strength, +23°C	6	-	kJ/m²	ISO 180/1A

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	75	-	°C	
0.45 MPa, Unannealed	240	-	°C	
Melting Temperature	265	*	°C	ISO 11357-3
RTI Elec				UL 746
0.400 mm	120		°C	
0.750 mm	120		°C	
1.50 mm	120		°C	
3.00 mm	120		°C	
RTI Imp				UL 746
0.400 mm	75		°C	
0.750 mm	80		°C	
1.50mm	80		°C	
3.00 mm	80		°C	
RTI Str				UL 746
0.400 mm	105		°C	
0.750 mm	110		°C	
1.50 mm	110		°C	
3.00 mm	110		°C	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	1E8	-	Ohm*m	IEC 60093
Dielectric Strength (1.00 mm)	17	-	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 2		-	
0.750 mm	PLC 1		-	
1.50 mm	PLC 1		-	
3.00 mm	PLC 1		-	
High Voltage Arc Tracking Rate (HVTR), 3.00 mm	PLC 0		-	UL 746
Hot-wire Ignition (HWI)				UL 746
0.400 mm	PLC 4		-	
0.750 mm	PLC 4		-	

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1.50 mm	PLC 3	-		
3.00 mm	PLC 2	-		
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	960		°C	
0.750 mm	960		°C	
1.50 mm	700		°C	
3.00 mm	700		°C	
Oxygen index	35	*	%	EN ISO 4589-2
Injection	Value		Unit	
Drying Temperature	80		°C	
Drying Time	4		h	
Rear Temperature	260 - 290		°C	
Middle Temperature	260 - 290		°C	
Front Temperature	260 - 290		°C	
Nozzle temperature	260 - 290		°C	
Processing (Melt) Temperature	270 - 285		°C	
Mold Temperature	65 - 95		°C	

