

Starflam® RF0068E

polyamide 66

Starflam RF0068E is a glass fiber reinforced, flame retardant PA66 for injection molded applications. The material is halogen free and red phosphorus free.

General

Regional Availability	• North America	• Europe	
Additive	• Flame Retarding Agent	• Heat Stabilizer	• Release agent
Features	• Flame Retardant	• Halogen Content, None	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.43	-	g/cm ³	ISO 1183
Water Absorption				ISO 62
23°C, 24 hr	0.8	*	%	
Equilibrium, 23°C, 50% RH	0.9	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	10700	8900	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	133	110	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.2	2.5	%	ISO 527-2
Flexural Modulus (23°C)	10400	8100	MPa	ISO 178
Flexural Strength (23°C)	197	169	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	8.7	9.9	kJ/m ²	
-30°C	9.1	9.1	kJ/m ²	
-40°C	9.1	9.2	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	61	59	kJ/m ²	
-30°C	56	53	kJ/m ²	
-40°C	51	52	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	7.8	9	kJ/m ²	
-30°C	8.1	8.8	kJ/m ²	
-40°C	8.5	9	kJ/m ²	

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Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	239	238	°C	
0.45 MPa, Unannealed	257	257	°C	
Melting Temperature	259	*	°C	ISO 11357-3
RTI Elec				UL 746
0.750 mm	140		°C	
3.00 mm	140		°C	
RTI Imp				UL 746
0.750 mm	110		°C	
3.00 mm	110		°C	
RTI Str				UL 746
0.750 mm	140		°C	
3.00 mm	140		°C	
Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	26	26	kV/mm	IEC 60243
Comparative Tracking Index (3.00 mm)	600		V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.750 mm	PLC 0		-	
3.00 mm	PLC 0		-	
Hot-wire Ignition (HWI)				UL 746
0.750 mm	PLC 2		-	
3.00 mm	PLC 0		-	
Flammability	Value		Unit	Test Standard
Flammability				UL 94
0.400 mm	V-0		-	
0.750 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	
3.00 mm	960		°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.400 mm	725		°C	
0.750 mm	725		°C	
3.00 mm	750		°C	

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Railway Application	dry	cond.	Unit	Test Standard
Oxygen index	35	-	%	EN ISO 4589-2
Smoke Density	97		Ds Max	EN ISO 5659-2
Smoke Toxicity	0.47		CIT _{NLP}	NF X 70-100-1/2
Railway Classification				EN 45545-2
R22	HL3		-	
R23	HL3		-	

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4	h
Suggested Max Moisture	0.25	%
Rear Temperature	265 - 275	°C
Middle Temperature	270 - 280	°C
Front Temperature	270 - 280	°C
Processing (Melt) Temperature	270 - 280	°C
Mold Temperature	60 - 100	°C

