

Starflam® PF0047E

polyamide 6



Starflam PF0047E is a 20% glass fiber reinforced, flame retardant PA6 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	• Bromine Free	• Flame Retardant	• Halogen Content, None
Agency Rating	• ISO, 1043 PA6 GF20 FR(40)	• ISO, 1043 PA6 GF20 FR(40)	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.36	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.8	*	%	
Flow : 23°C, 2.00 mm	0.4	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.2	*	%	
Equilibrium, 23°C, 50% RH	1.5	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	8500	5300	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	123	71	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.5	3.4	%	ISO 527-2
Flexural Modulus (23°C)	10800	4700	MPa	ISO 178
Flexural Strength (23°C)	223	98	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	7.6	12	kJ/m ²	
-30°C	5.9	6.2	kJ/m ²	
-40°C	6	6.1	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	51	61	kJ/m ²	
-30°C	43	50	kJ/m ²	
-40°C	40	46	kJ/m ²	

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Notched Izod Impact Strength				ISO 180/1A
+23°C	6.4	9.9	kJ/m²	
-30°C	5.3	6.6	kJ/m²	
-40°C	4.7	6.5	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	205	191	°C	
0.45 MPa, Unannealed	220	216	°C	
Melting Temperature	224	*	°C	ISO 11357-3

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	29	25	kV/mm	IEC 60243

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4	h
Suggested Max Moisture	0.2	%
Rear Temperature	240 - 250	°C
Middle Temperature	240 - 260	°C
Front Temperature	250 - 270	°C
Processing (Melt) Temperature	250 - 270	°C
Mold Temperature	50 - 90	°C

