+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

Starflam® PK0052E

polyamide 6

Starflam PK0052E is a 25% mineral filled, 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	• Flame Retardant	• Halogen Content, None	
Uses	• Mineral Reinforced		
Agency Rating	• ISO, 1043 PA6 GF25 FR(30)	• ISO, 1043 PA6 MD25 FR(30)	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	dry	cond.	Unit	Test Standard
Density	1.38	-	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.9	*	%	
Flow : 23°C, 2.00 mm	0.9	*	%	
Water Absorption				ISO 62
23°C, 24 hr	0.9	*	%	
Equilibrium, 23°C, 50% RH	1.4	*	%	

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	6200	3700	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	69	39	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3	4	%	ISO 527-2
Flexural Modulus (23°C)	6900	2500	MPa	ISO 178
Flexural Strength (23°C)	119	44	MPa	ISO 178

Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	3.2	4.7	kJ/m²	
-30°C	2.8	2.5	kJ/m²	
-40°C	3.4	2.2	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	32	41	kJ/m²	
-30°C	32	37	kJ/m²	

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-40°C	35	33	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	3	3.3	kJ/m²	
-30°C	3.4	2.8	kJ/m²	
-40°C	2.8	2.2	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	119	111	°C	
0.45 MPa, Unannealed	201	193	°C	
Melting Temperature	221	*	°C	ISO 11357-3
RTI Elec				UL 746
0.800 mm	65		°C	
RTI Imp				UL 746
0.800 mm	65		°C	
RTI Str				UL 746
0.800 mm	65		°C	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	1E13	-	Ohm*m	IEC 60093
Dielectric Strength (1.00 mm)	29	29	kV/mm	IEC 60243

Flammability	Value	Test Standard
Flammability		UL 94
0.800 mm	V-2	

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