Starflam® PK0052E

Ascend Performance Materials Operations LLC - *Polyamide 6*

General Information

Product Description

Starflam PK0052E is a 25% mineral filled, flame retardant PA6 for injection molded applications. The material is halogen free and red phosphorus free.

General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Filler / Reinforcement	• Mineral, 25% Filler by Weight		
Additive	• Flame Retardant	• Heat Stabilizer	• Mold Release
Features	• Flame Retardant	• Halogen Free	• Heat Stabilized
Agency Ratings	• ISO 1043 PA6 GF25 FR(30)	• ISO 1043 PA6 MD25 FR(30)	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA6-MF25 FR		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.38	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.90	--	%	
Flow : 73°F, 0.0787 in	0.90	--	%	
Water Absorption (24 hr, 73°F)	0.90	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.4	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	899000	537000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	10000	5660	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.0	4.0	%	ISO 527-2
Flexural Modulus (73°F)	1.00E+6	363000	psi	ISO 178
Flexural Stress (73°F)	17300	6380	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	1.6	1.0	ft·lb/in²	
-22°F	1.3	1.2	ft·lb/in²	
73°F	1.5	2.2	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	17	16	ft·lb/in²	
-22°F	15	18	ft·lb/in²	
73°F	15	20	ft·lb/in²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	1.3	1.0	ft·lb/in²	
-22°F	1.6	1.3	ft·lb/in²	
73°F	1.4	1.6	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	394	379	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	246	232	°F	ISO 75-2/A
Melting Temperature	430	--	°F	ISO 11357-3

RTI Elec (0.031 in)	149	--	°F	UL 746B
RTI Imp (0.031 in)	149	--	°F	UL 746B
RTI Str (0.031 in)	149	--	°F	UL 746B
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Volume Resistivity (0.0394 in)	1.0E+15	--	ohms·cm	IEC 60093
Electric Strength (0.0394 in)	740	740	V/mil	IEC 60243-1
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating (0.031 in)	V-2	--		UL 94

Processing Information

Injection	**Dry**	**Unit**
Drying Temperature	176	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	464 to 482	°F
Middle Temperature	482 to 500	°F
Front Temperature	482 to 518	°F
Processing (Melt) Temp	482 to 518	°F
Mold Temperature	122 to 194	°F

Notes

[1] Typical properties: these are not to be construed as specifications.