

Starflam® RF0023E

Ascend Performance Materials Operations LLC - *Polyamide 66/6 Copolymer*

General Information

Product Description

Starflam RF0023E is a mineral filled, glass fiber reinforced, flame retardant (PA66+PA6)-blend for injection molded applications. The material is halogen free and red phosphorus free.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Fiber/Mineral, 60% Filler by Weight
Additive	• Flame Retardant • Heat Stabilizer • Mold Release
Features	• Flame Retardant • Halogen Free • Heat Stabilized
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA66/6-(GF+MF)60 FR

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Water Absorption (24 hr, 73°F)	0.60	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.55E+6	798000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	12500	8410	psi	ISO 527-2
Tensile Strain (Break, 73°F)	1.4	2.4	%	ISO 527-2
Flexural Modulus (73°F)	1.61E+6	754000	psi	ISO 178
Flexural Stress (73°F)	19900	11700	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	1.7	1.6	ft·lb/in ²	
-22°F	1.7	1.6	ft·lb/in ²	
73°F	1.7	2.0	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	9.5	8.6	ft·lb/in ²	
-22°F	9.5	8.6	ft·lb/in ²	
73°F	10	16	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	1.7	1.6	ft·lb/in ²	
-22°F	1.7	1.6	ft·lb/in ²	
73°F	1.9	2.0	ft·lb/in ²	
Unnotched Izod Impact Strength (73°F)	10	--	ft·lb/in ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	455	441	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	412	387	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3
RTI Elec				UL 746B
0.03 in	266	--	°F	
0.07 in	266	--	°F	
0.12 in	266	--	°F	
RTI Imp				UL 746B



0.03 in	221	--	°F	
0.07 in	221	--	°F	
0.12 in	221	--	°F	
RTI Str				UL 746B
0.03 in	248	--	°F	
0.07 in	266	--	°F	
0.12 in	284	--	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength (0.0394 in)	640	610	V/mil	IEC 60243-1
Comparative Tracking Index (0.118 in)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746A
0.03 in	PLC 0	--		
0.07 in	PLC 0	--		
0.12 in	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR) (0.118 in)	PLC 0	--		UL 746A
Hot-wire Ignition (HWI) (0.03 in)	PLC 0	--		UL 746A
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.03 in	V-2	--		
0.07 in	V-0	--		
0.12 in	V-0	--		

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	4.0	hr
Suggested Max Moisture	< 0.20	%
Rear Temperature	518 to 536	°F
Middle Temperature	527 to 545	°F
Front Temperature	536 to 572	°F
Processing (Melt) Temp	536 to 572	°F
Mold Temperature	140 to 194	°F

Notes

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

