

Starflam® RF0057E

polyamide 66



Starflam RF0057E is a glass fiber reinforced, flame retardant PA66 for injection molded applications. The material is halogen free and red phosphorus free.

General

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	1.37	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	0.7	*	%	
Flow : 23°C, 2.00 mm	0.4	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.1	*	%	
Equilibrium, 23°C, 50% RH	1.7	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	9600	6300	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	126	84	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.3	3.6	%	ISO 527-2
Flexural Modulus (23°C)	9600	6200	MPa	ISO 178
Flexural Strength (23°C)	194	127	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	8	11	kJ/m ²	
-30°C	8	7.6	kJ/m ²	
-40°C	8.1	7.2	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	55	59	kJ/m ²	
-30°C	58	53	kJ/m ²	
-40°C	53	52	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	8.1	10	kJ/m ²	
-30°C	7.7	7.6	kJ/m ²	

©2025 Ascend Performance Materials Operations. The Ascend Performance Materials name, brands, marks and logos (e.g., those identified with ®, ™, or SM) are owned by Ascend Performance Materials Operations, unless otherwise noted.

Starflam® RF0057E

polyamide 66



-40°C	8	7.4	kJ/m²	
Unnotched Izod Impact Strength, +23°C	45	-	kJ/m²	ISO 180/1U

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	244	234	°C	
0.45 MPa, Unannealed	260	258	°C	
Melting Temperature	262	*	°C	ISO 11357-3
RTI Elec				UL 746
0.400 mm	65		°C	
0.800 mm	140		°C	
0.900 mm	140		°C	
1.50 mm	140		°C	
1.60 mm	140		°C	
2.00 mm	140		°C	
3.00 mm	140		°C	
RTI Imp				UL 746
0.400 mm	65		°C	
0.800 mm	110		°C	
0.900 mm	110		°C	
1.50mm	110		°C	
1.60 mm	110		°C	
2.00 mm	110		°C	
3.00 mm	110		°C	
RTI Str				UL 746
0.400 mm	65		°C	
0.800 mm	140		°C	
0.900 mm	140		°C	
1.50 mm	140		°C	
1.60 mm	140		°C	
2.00 mm	140		°C	
3.00 mm	140		°C	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	30	30	kV/mm	IEC 60243
Comparative Tracking Index (3.00 mm)	600		V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.400 mm	PLC 0			
0.800 mm	PLC 0			
0.900 mm	PLC 0			

©2025 Ascend Performance Materials Operations. The Ascend Performance Materials name, brands, marks and logos (e.g., those identified with ®, ™, or SM) are owned by Ascend Performance Materials Operations, unless otherwise noted.

Starflam® RF0057E

polyamide 66



1.50 mm	PLC 0		
1.60 mm	PLC 0		
2.00 mm	PLC 0		
3.00 mm	PLC 0		
Hot-wire Ignition (HWI)			UL 746
0.400 mm	PLC 0		
0.800 mm	PLC 0		
0.900 mm	PLC 0		
1.50 mm	PLC 0		
1.60 mm	PLC 0		
2.00 mm	PLC 0		
3.00 mm	PLC 0		
Flammability	Value	Unit	Test Standard
Flammability			UL 94
0.400 mm	V-0		
0.800 mm	V-0		
1.50 mm	V-0		
1.60 mm	V-0		
3.00 mm	V-0		
Flammability, 5V			UL 94
2.00 mm	5VA		
3.00 mm	5VB		
Glow Wire Flammability Index			IEC 60695-2-12
0.400 mm	960	°C	
0.800 mm	960	°C	
0.900 mm	960	°C	
1.50 mm	960	°C	
1.60 mm	960	°C	
2.00 mm	960	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.400 mm	775	°C	
0.800 mm	775	°C	
0.900 mm	775	°C	
1.50 mm	775	°C	
1.60 mm	775	°C	
2.00 mm	775	°C	
3.00 mm	825	°C	

©2025 Ascend Performance Materials Operations. The Ascend Performance Materials name, brands, marks and logos (e.g., those identified with ®, ™, or SM) are owned by Ascend Performance Materials Operations, unless otherwise noted.

Starflam® RF0057E

polyamide 66



Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4	h
Suggested Max Moisture	0.15 - 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



North America
+1 888 927 2363

Europe
+32 10 608 600

Asia
+86 21 2315 0888

Disclaimer

NOTICE: Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Ascend Performance Materials Operations makes no representation or warranties as to the completeness of accuracy thereof.

Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to use. In no event will Ascend Performance Materials Operations be responsible for damages of any nature whatsoever resulting in the use of or reliance upon information or the products to which information refers. Nothing contained herein is to be construed as a recommendation to use any product, equipment or formulation in conflict with any patent, and Ascend Performance Materials Operations makes no representation or warranty, express or implied, that use thereof will not infringe any patent. No representation or warranties, either express or implied, of merchantability fitness for a particular purpose or of any other nature are made hereunder with respect to information or product to which information refers.

CAUTION: Do not use Ascend Performance Materials Operations MED grades in medical applications involving implantation in the human body or contact with internal body fluids or tissues for extended periods of time.