

Starflam® R10002E

copolyamide 66/6



Starflam R10002E is a flame retardant PA66/6 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
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.18	-	g/cm ³	ISO 1183
Water Absorption				ISO 62
23°C, 24 hr	1.6	*	%	
Equilibrium, 23°C, 50% RH	1.8	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	4100	2300	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	82	48	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	4.9	6.2	%	ISO 527-2
Flexural Modulus (23°C)	3600	1500	MPa	ISO 178
Flexural Strength (23°C)	102	37	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	3.6	4.6	kJ/m ²	
-30°C	2.5	2.6	kJ/m ²	
-40°C	3.1	1.9	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	55	68	kJ/m ²	
-30°C	52	24	kJ/m ²	
-40°C	48	N	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	3.9	3.6	kJ/m ²	
-30°C	3.6	3.2	kJ/m ²	
-40°C	3.6	2.6	kJ/m ²	
Unnotched Izod Impact Strength, +23°C	60	-	kJ/m ²	ISO 180/1U

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Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	74	-	°C	
0.45 MPa, Unannealed	189	189	°C	
Melting Temperature	262	*	°C	ISO 11357-3
RTI Elec				UL 746
0.400 mm	65		°C	
0.800 mm	120		°C	
1.60 mm	120		°C	
3.00 mm	120		°C	
RTI Imp				UL 746
0.400 mm	65		°C	
0.800 mm	65		°C	
1.60 mm	75		°C	
3.00 mm	75		°C	
RTI Str				UL 746
0.400 mm	65		°C	
0.800 mm	85		°C	
1.60 mm	85		°C	
3.00 mm	85		°C	
Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	26	20	kV/mm	IEC 60243
High Amp Arc Ignition (HAI)				UL 746
0.800 mm	PLC 0		-	
Hot-wire Ignition (HWI)				UL 746
0.800 mm	PLC 3		-	
Flammability	Value			Test Standard
Flammability				UL 94
0.400 mm	V-0			
0.800 mm	V-0			
1.60 mm	V-0			
3.00 mm	V-0			
Injection	Value		Unit	
Drying Temperature	75 - 85		°C	
Drying Time	4		h	
Suggested Max Moisture	0.2		%	

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Rear Temperature	260 - 270	°C
Middle Temperature	265 - 280	°C
Front Temperature	270 - 280	°C
Processing (Melt) Temperature	265 - 280	°C
Mold Temperature	60 - 90	°C

