

Starflam® PW0042E

polyamide 6



Starflam PW0042E is a 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		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.34	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.0	*	%	
Flow : 23°C, 2.00 mm	1.1	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.4	*	%	
Equilibrium, 23°C, 50% RH	1.7	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	5200	2200	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	73	33	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.8	12	%	ISO 527-2
Flexural Modulus (23°C)	5200	2100	MPa	ISO 178
Flexural Strength (23°C)	109	40	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	3.1	4.1	kJ/m ²	
-30°C	2.6	2.2	kJ/m ²	
-40°C	2.6	2.1	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	38	76	kJ/m ²	
-30°C	36	31	kJ/m ²	
-40°C	31	30	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A

Starflam® PW0042E

polyamide 6



+23°C	3.9	4.9	kJ/m²	
-30°C	3.4	2.7	kJ/m²	
-40°C	3.1	2.7	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	84	-	°C	
0.45 MPa, Unannealed	188	-	°C	
Melting Temperature	220	*	°C	ISO 11357-3
RTI Elec				UL 746
0.750 mm	65		°C	
RTI Imp				UL 746
0.750 mm	65		°C	
RTI Str				UL 746
0.750 mm	65		°C	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	25	21	kV/mm	IEC 60243

Flammability	Value	Test Standard
Flammability		UL 94
0.750 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

