Fortron® 6160B4

Polyphenylene Sulfide

Celanese Corporation

Message:

Fortron 6160B4 has excellent heat and chemical resistance as well as good electrical properties. This product is inherently flame-retardant and offers high hardness and rigidity. 6160B4 has demonstrated excellent performance in hot runner systems and superior contact corrosion resistance. Applications include electronic components (i.e. molded in lead frames, contacts or pins).

General Information			
UL YellowCard	E107854-237747		
Filler / Reinforcement	Glass \mineral, 60% filler by weight		
Features	Rigidity, high Good electrical performance Good chemical resistance Heat resistance, high High hardness Flame retardancy		
Uses	Electrical/Electronic Applications		
RoHS Compliance	Contact manufacturer		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.90	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.30 - 0.70	%	ISO 294-4
Flow direction	0.20 - 0.60	%	ISO 294-4
Water Absorption (Saturation, 23°C)	0.020	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	100		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	17300	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	145	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.0	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	16700	MPa	ISO 178
Flexural Stress [1]	220	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	7.0	kJ/m²	ISO 179/1eA
23°C	7.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	27	kJ/m²	ISO 179/1eU
23°C	27	kJ/m²	ISO 179/1eU

Notched Izod Impact			ISO 180/1A
-30°C	7.0	kJ/m²	ISO 180/1A
23°C	7.0	kJ/m²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
1.8 MPa, not annealed	270	°C	ISO 75-2/A
8.0 MPa, not annealed	220	°C	ISO 75-2/C
Glass Transition Temperature [2]	90.0	°C	ISO 11357-2
Melting Temperature [3]	280	°C	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength	26	kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	4.90		IEC 60250
Dissipation Factor (1 MHz)	1.0E-3		IEC 60250
Comparative Tracking Index	175	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.810 mm	V-0		UL 94
1.50 mm	V-0		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	130 - 140	°C	
Drying Time	3.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	20.0 - 30.0	°C	
Rear Temperature	290 - 300	°C	
Middle Temperature	310 - 320	°C	
Front Temperature	330 - 340	°C	
Nozzle Temperature	310 - 330	°C	
Processing (Melt) Temp	330 - 340	°C	
Mold Temperature	140 - 160	°C	
Injection Pressure	50.0 - 100	MPa	
Injection Rate	Fast		
Holding Pressure	30.0 - 70.0	MPa	
Back Pressure	0.00 - 3.00	MPa	
Injection instructions			
Manifold Temperature: 330 to 340°CZone 4 Temperature: 330 to 340°CFeed Temperature: 60 to 80°C			
NOTE			
1.	Break		
2.	10°C/min		
3.	10°C/min		

Recommended distributors for this material

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