

Technical Data Sheet

Polyflam PC-FR0 BR8112 SF

Polycarbonate

Product Description

Polycarbonate, UL Recognized 94 V-0, 94 5VAUV Stable/Weatherable, f1 Rated - Colors AvailableElevated RTI - 105°C Melt Flow Adjustable for ApplicationUL File Number: E51193

Appearance

Colors Available

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (300 °C/2.16 kg)	10	g/10 min	ASTM D1238
Density - Specific Gravity	1.21	g/cm ³	ASTM D792
Mechanical			
Tensile Elongation at Yield	3.8	%	ASTM D638
Tensile Strength at Yield	60	MPa	ASTM D638
Tensile Strength at Break	48	MPa	ASTM D638
Flexural Modulus	2420	MPa	ASTM D790
Tensile Elongation at Break	>60	%	ASTM D638
Tensile Modulus	2400	MPa	ASTM D638
Flexural Strength	90.3	MPa	ASTM D790
Impact			
Charpy Impact Strength - Notched			
(23 °C)	20	kJ/m ²	ISO 179
(-30 °C)	11	kJ/m ²	ISO 179
Notched Izod Impact			
(23 °C, 3.18 mm)	350	J/m	ASTM D256
(-30 °C)	120	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	122		ASTM D785
Thermal			
Deflection Temperature Under Load Unannealed (264 psi)	121	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi)	133	°C	ASTM D648
Coefficient of Linear Thermal Expansion (CLTE), Flow (TMA), (-40 to 95 °C)	6.1E-5	cm/cm/°C	ASTM E831
Coefficient of Linear Thermal Expansion (CLTE), Perpendicular (TMA), (-40 to 95 °C)	6.3E-5	cm/cm/°C	ASTM E831
RTI Elec	105	°C	UL 746B
RTI Imp	105	°C	UL 746B
RTI Str	105	°C	UL 746B
Electrical			

Volume Resistivity	4.6E+15	ohm*cm	ASTM D257
UL Information			
UL File Number	E51193		
Outdoor Suitability			UL 746C

Injection Parameters		Nominal Value	Units
Drying Temperature		121	°C
Suggested Max Moisture		<0.020	%
Nozzle Temperature		249 to 288	°C
Screw Speed		40 to 75	rpm
Processing (Melt) Temp		249 to 288	°C
Front Temperature		249 to 288	°C
Middle Temperature		249 to 288	°C
Rear Temperature		249 to 277	°C
Back Pressure		<0.689	MPa
Mold Temperature		71 to 104	°C