



Fortron® 1140L6 FC

Celanese Corporation - Polyphenylene Sulfide

Tuesday, November 5, 2019

General Information

Product Description

Fortron 1140L6FC is an easier flow version of Fortron 1140L4 made for food contact applications. It offers essentially the same characteristics of 1140L4. Especially used for thin walled parts with long flow lengths. Applications made of this grade include components for pumps and electronics.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Food Contact Acceptable	• Good Flow	
Uses	• Electrical/Electronic Applications	• Pump Parts	• Thin-walled Parts
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.65	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.40 to 0.60	%	
Flow	0.20 to 0.60	%	
Water Absorption (Saturation, 73°F)	0.020	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.13E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	28300	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.9	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	2.10E+6	psi	ISO 178
Flexural Stress	41300	psi	ISO 178
Compressive Modulus	2.10E+6	psi	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.8	ft·lb/in ²	
73°F	4.8	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	25	ft·lb/in ²	
73°F	25	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180/1A
-22°F	4.8	ft·lb/in ²	
73°F	4.8	ft·lb/in ²	
Unnotched Izod Impact Strength			ISO 180/1U
-22°F	16	ft·lb/in ²	
73°F	16	ft·lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	100		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	518	°F	ISO 75-2/A
Heat Deflection Temperature (1160 psi, Unannealed)	419	°F	ISO 75-2/C

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Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature ²	194	°F	ISO 11357-2
Melting Temperature ²	536	°F	ISO 11357-3
CLTE - Flow	1.4E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	2.3E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	710	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	4.20		IEC 60250
Dissipation Factor (1 MHz)	2.0E-3		IEC 60250
Comparative Tracking Index	125	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.015 in	V-0		
0.06 in	V-0		
Fill Analysis	Nominal Value	Unit	
Specific Heat Capacity of Melt	0.359	Btu/lb/°F	
Additional Information	Nominal Value	Unit	
CSA Rating - CSA F-1 (33.1 mil)	A00		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	266 to 284	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	68 to 86	°F
Rear Temperature	554 to 572	°F
Middle Temperature	590 to 608	°F
Front Temperature	626 to 644	°F
Nozzle Temperature	590 to 626	°F
Processing (Melt) Temp	626 to 644	°F
Mold Temperature	284 to 320	°F
Injection Rate	Fast	
Back Pressure	< 435	psi

Injection Notes

Feeding zone temperature: 60 to 80°C
 Zone4 temperature: 330 to 340°C
 Hot runner temperature: 330 to 340°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min