Fortron® 1130L4

Celanese Corporation - Polyphenylene Sulfide

Tuesday, November 5, 2019

General Information

Product Description

Fortron 1130L4 is a 30% glass-reinforced PPS that has excellent heat and chemical resistance. It is inherently flame-retardant and exhibits high hardness and a good balance of strength and stiffness. Especially used for thin walled parts requiring long flow lengths. This grade also exhibits excellent weldability in secondary operations due to its low filler content.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Chemical Resistant • Flame Retardant • Good Heat Resistance	• Good Stiffness • Good Strength • High Hardness	• Weldable
Uses	• Thin-walled Parts		
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.58	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.70	%	
Flow	0.30	%	
Water Absorption (Saturation, 73°F)	0.020	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.74E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	24700	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.9	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.60E+6	psi	ISO 178
Flexural Stress	37700	psi	ISO 178
Compressive Modulus	1.78E+6	psi	ISO 604
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.3	ft·lb/in²	
73°F	4.3	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	16	ft·lb/in²	
73°F	16	ft·lb/in²	
Notched Izod Impact Strength			ISO 180/1A
-22°F	4.3	ft·lb/in²	
73°F	4.3	ft·lb/in²	
Unnotched Izod Impact Strength			ISO 180/1U
-22°F	14	ft·lb/in²	
73°F	14	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	100		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	491	°F	ISO 75-2/A
Glass Transition Temperature [2]	194	°F	ISO 11357-2
Melting Temperature	536	°F	
CLTE - Flow	1.6E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	2.9E-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
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.031 in	V-0		
0.06 in	V-0		

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