Fortron® MT9140L6

Celanese Corporation - Polyphenylene Sulfide

Tuesday, November 5, 2019

General Information

Product Description

FORTRON® MT9140L6 SF3001 (natural) is a 40% glass fiber reinforced injection molding grade with a low melt viscosity.

FORTRON® MT9140L6 SF3001 (natural) is a special grade developed for medical industry applications and complies with:

- Food Contact Substance Notification (FCN) No. 40 of the Food and Drug Administration (FDA) and is listed in the Drug Master File (DMF 14844) and the Device Master File (MAF 1097)
- the corresponding EU and national registry regulatory requirements
- biocompatibility in tests corresponding to USP 23 Class VI/ISO 10993
- low residual monomers
- no animal products

It exhibits excellent heat and chemical resistance, inherent flame retardancy and shows high hardness and rigidity at elevated temperatures.
Fortron MT9140L6 is used for thin walled parts with long flow lengths.
Components made of this grade may be used for medical, dental, pharmaceutical, and certain food handling applications.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	• Chemical Resistant • Flame Retardant • Food Contact Acceptable	• High Hardness • High Stiffness • Low Viscosity	• No Animal Derived Components
Uses	• Dental Applications • Medical/Healthcare Applications	• Non-specific Food Applications • Pharmaceuticals	• Thin-walled Parts
Agency Ratings	• DMF 14844 • ISO 10993	• MAF 1097 • USP XXIII, Class VI	
RoHS Compliance	• Contact Manufacturer		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.65	g/cm³	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 Stress (Break)	27600	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.8	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	2.03E+6	psi	ISO 178
Flexural Stress (73°F)	40600	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	4.3	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	23	ft·lb/in²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	4.8	ft·lb/in²	ISO 180/1A

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Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact Strength (73°F)	15	ft·lb/in²	ISO 180/1U
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)	392	°F	ISO 75-2/C
Glass Transition Temperature [2]	194	°F	ISO 11357-2
Melting Temperature [2]	536	°F	ISO 11357-3

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