



# Fortron® MT9140L4

Celanese Corporation - Polyphenylene Sulfide

Tuesday, November 5, 2019

## General Information

### Product Description

FORTRON® MT9140L4 SF3001 (natural) is a 40% glass fiber reinforced injection molding grade that exhibits excellent heat and chemical resistance, inherent flame retardancy, and high hardness and rigidity at elevated temperatures.

FORTRON® MT9140L4 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

Components made of this grade may be used for medical and food handling applications.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	• Chemical Resistant	• Food Contact Acceptable	• High Hardness
Uses	• Medical/Healthcare Applications • Non-specific Food Applications		
Agency Ratings	• DMF 14844	• MAF 1097	• ISO 10993
RoHS Compliance	• Flame Retardant • Good Heat Resistance • No Animal Derived Components		
Processing Method	• Contact Manufacturer • Injection Molding		

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.65	g/cm <sup>3</sup>	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/in <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	23	ft·lb/in <sup>2</sup>	ISO 179/1eU
Notched Izod Impact Strength (73°F)	4.8	ft·lb/in <sup>2</sup>	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	15	ft·lb/in <sup>2</sup>	ISO 180/1U

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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 <sup>2</sup>	194	°F	ISO 11357-2
Melting Temperature <sup>2</sup>	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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min