Fortron® MT9140L4

Polyphenylene Sulfide

Celanese Corporation

Message:

Fortron MT 9140L4 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.

Components made of this grade may be used for medical and food handling applications. Fortron MT 9140L4 is in compliance with ISO 10993, USP Class VI, and is included in the Fortron Drug and Device Master Files at the FDA. The grade complies with the FDA Food Contact Notification (FCN-No. 40) for repeat-use applications.

General Information				
UL YellowCard	E107854-237739			
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight			
Features	Good chemical resistance			
	High hardness			
	Flame retardancy			
Uses	Non-specific food applications			
	Medical/nursing supplies			
Agency Ratings	FDA FCN 40			
	ISO 10993			
	USP Class VI			
RoHS Compliance	Contact manufacturer			
Processing Method	Injection molding			
Physical	Nominal Value	Unit	Test Method	
Density	1.65	g/cm³	ISO 1183	
Molding Shrinkage			ISO 294-4	
Vertical flow direction	0.40 - 0.60	%	ISO 294-4	
Flow direction	0.20 - 0.60	%	ISO 294-4	
Water Absorption (Saturation, 23°C)	0.020	%	ISO 62	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (M-Scale)	100		ISO 2039-2	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Stress (Break)	190	MPa	ISO 527-2/1A/5	
Tensile Strain (Break)	1.8	%	ISO 527-2/1A/5	
Flexural Modulus (23°C)	14000	MPa	ISO 178	
Flexural Stress (23°C)	280	MPa	ISO 178	
Impact	Nominal Value	Unit	Test Method	
Charpy Notched Impact Strength (23°C)	9.0	kJ/m²	ISO 179/1eA	

Charpy Unnotched Impact Strength (23°C)48Notched Izod Impact (23°C)10Unnotched Izod Impact Strength (23°C)32ThermalNom	iinal Value	kJ/m ² kJ/m ² Unit	ISO 179/1eU ISO 180/1A ISO 180/1U
Unnotched Izod Impact Strength (23°C) 32	ninal Value	kJ/m²	
· · ·	inal Value		ISO 180/1U
Thermal Nom	inal Value	Unit	
			Test Method
Heat Deflection Temperature			
1.8 MPa, not annealed 270		°C	ISO 75-2/A
8.0 MPa, not annealed 200		°C	ISO 75-2/C
Glass Transition Temperature ¹ 90.0		°C	ISO 11357-2
Melting Temperature ² 280		°C	ISO 11357-3
Injection Nom	ninal Value	Unit	
Drying Temperature 130	- 140	°C	
Drying Time 3.0 -	4.0	hr	
Suggested Max Moisture 0.020	0	%	
Hopper Temperature 20.0	- 30.0	°C	
Rear Temperature 290	- 300	°C	
Middle Temperature 310	- 320	°C	
Front Temperature 330	- 340	°C	
Nozzle Temperature 310	- 330	°C	
Processing (Melt) Temp 330	- 340	°C	
Mold Temperature 140	- 160	°C	
Injection Pressure 50.0	- 100	MPa	
Injection Rate Fast			
Holding Pressure 30.0	- 70.0	MPa	
Back Pressure 0.00	- 3.00	MPa	
Injection instructions			
Manifold Temperature: 330 to 340°CZone 4 Tempe	rature: 330 to 340°CFeed Tempera	ature: 60 to 80°C	
NOTE			
1. 10°C	/min		
2. 10°C	Z/min		

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