

FORTRON® 1140T4 - PPS

Description

Fortron® 1140T4 is a 40% glass filled, impact modified grade for injection molding with good thermal shock resistance.

Physical properties	Value	Unit	Test Standard
Density	101	lb/ft³	ISO 1183
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2.1E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	26800	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	2.1	%	ISO 527-1, -2
Flexural modulus, 23°C	2.1E6	psi	ISO 178
Flexural strength, 23°C	39200	psi	ISO 178
Charpy impact strength, 23°C	28.5	ft-lb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.66	ft-lb/in²	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	536	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	194	°F	ISO 11357-1,-2,-3
DTUL at 1.8 MPa	509	°F	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0.0889	E-4/°F	ISO 11359-2
Coeff. of linear therm expansion, normal	0.267	E-4/°F	ISO 11359-2
Flammability @0.8mm nom. thickn.	V-0	class	UL 94
thickness tested (0.8)	0.0315	in	UL 94
Electrical properties	Value	Unit	Test Standard
Volume resistivity, 23°C	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity, 23°C	>1E15	Ohm	IEC 62631-3-2
Electric strength, 23°C (AC)	584	kV/in	IEC 60243-1
Comparative tracking index	Group IIIa	-	IEC 60112

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	0.02	%
Drying time	3 - 4	h
Drying temperature	266 - 284	°F
Temperature	Value	Unit
Hopper temperature	68 - 86	°F
Zone1 temperature	572 - 608	°F
Zone2 temperature	590 - 608	°F
Zone3 temperature	590 - 626	°F
Zone4 temperature	590 - 626	°F
Nozzle temperature	590 - 626	°F
Melt temperature	590 - 626	°F
Mold temperature	284 - 320	°F
Hot runner temperature	590 - 626	°F
Pressure	Value	Unit
Back pressure max.	30	bar



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Speed	Value	
Injection speed	fast	
Screw Speed	Value	Unit
Screw speed diameter, 25mm	120	RPM
Screw speed diameter, 40mm	75	RPM
Screw speed diameter, 55mm	50	RPM

Characteristics

Special Characteristics	Flame retardant
Product Categories	Glass reinforced, Impact modified
Processing	Injection molding

