

FORTRON® FX32T4L - PPS

Description

Fortron FX32T4L is an impact modified, injection moldable grade. It is a lubricated version of FX32T4

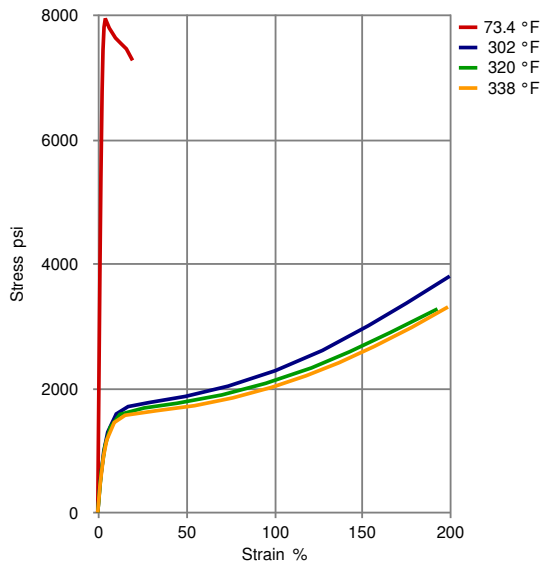
Physical properties	Value	Unit	Test Standard
Density	76.8	lb/ft ³	ISO 1183
Melt flow rate, MFR	27	g/10min	ISO 1133
MFR temperature	590	°F	ISO 1133
MFR load	4.76	lb	ISO 1133
Molding shrinkage, parallel (flow)	2.0	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	2.0	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	319084	psi	ISO 527-1, -2
Tensile stress at yield, 50mm/min	7980	psi	ISO 527-1, -2
Tensile stress at break, 50mm/min	6670	psi	ISO 527-1, -2
Tensile strain at break, 50mm/min	30	%	ISO 527-1, -2
Flexural modulus, 23°C	319000	psi	ISO 178
Flexural strength, 23°C	9860	psi	ISO 178
Charpy notched impact strength, 23°C	4.76	ft-lb/in ²	ISO 179/1eA

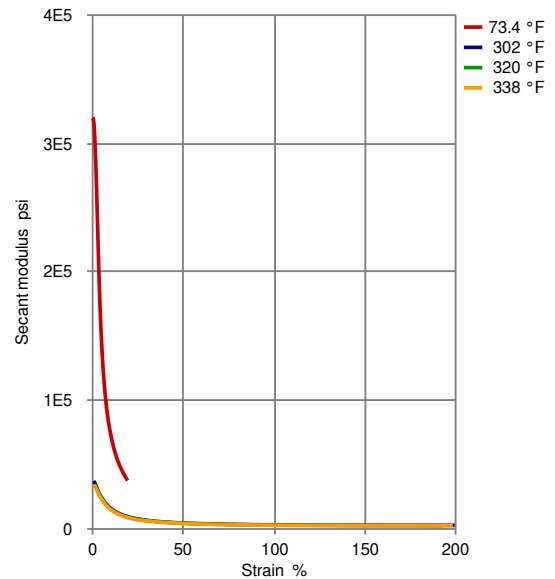
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	536	°F	ISO 11357-1/-3
DTUL at 1.8 MPa	212	°F	ISO 75-1, -2

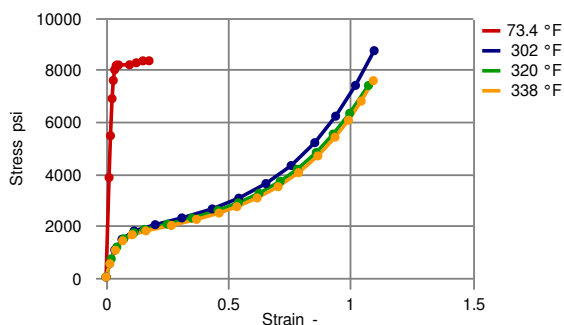
Diagrams

Stress-strain



Secant modulus-strain



True Stress-strain**Typical injection moulding processing conditions**

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	0.02	%
Drying time	3 - 4	h
Drying temperature	176	°F
Temperature	Value	Unit
Hopper temperature	68 - 86	°F
Feeding zone temperature	140 - 167	°F
Zone1 temperature	536 - 572	°F
Zone2 temperature	545 - 581	°F
Zone3 temperature	545 - 581	°F
Zone4 temperature	554 - 590	°F
Nozzle temperature	554 - 608	°F
Melt temperature	554 - 608	°F
Mold temperature	122 - 275	°F
Hot runner temperature	554 - 608	°F
Pressure	Value	Unit
Back pressure max.	35	bar
Speed	Value	
Injection speed	slow-medium	
Screw Speed	Value	Unit
Screw speed diameter, 25mm	120	RPM
Screw speed diameter, 40mm	75	RPM
Screw speed diameter, 55mm	50	RPM

Other text information**Pre-drying**

Fortron® should in principle be predried. Because of the necessary low maximum residual moisture content, the use of dry air dryers is recommended. The dew point should be < -30 °C. The time between drying and processing should be as short as possible.

Injection molding

Injection Molding:

Drying – alternate 80 °C, approx. 6 hours



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Mold surface temperature – a wide range of 30 °C to 135 °C is possible. Highest crystallinity will often be achieved at higher mold temperature. Depending on the part design, improved surface appearance and demolding may be achieved at 50 °C to 70 °C.

Characteristics

Product Categories	Impact modified
Processing	Injection molding

