

FORTRON® FX32T4 - PPS

Description

Fortron® SKX-734 is an impact modified, injection moldable grade. *Preliminary Data Sheet
Fortron FX32T4 is an impact modified, injection moldable grade.
The mechanical properties reported on this data sheet refer to a mold wall temperature of 135 deg C.

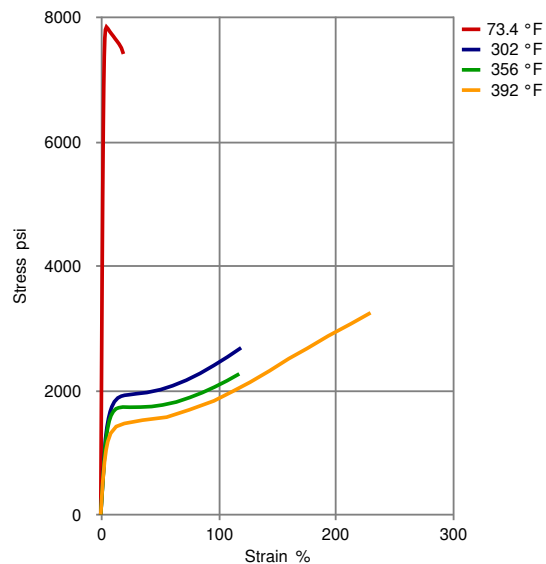
Physical properties	Value	Unit	Test Standard
Melt flow rate, MFR	28	g/10min	ISO 1133
MFR temperature	590	°F	ISO 1133
MFR load	4.76	lb	ISO 1133
Molding shrinkage, parallel (flow)	1.2	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	1.2	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	304580	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
Charpy notched impact strength, 23°C	4.76	ft-lb/in ²	ISO 179/1eA

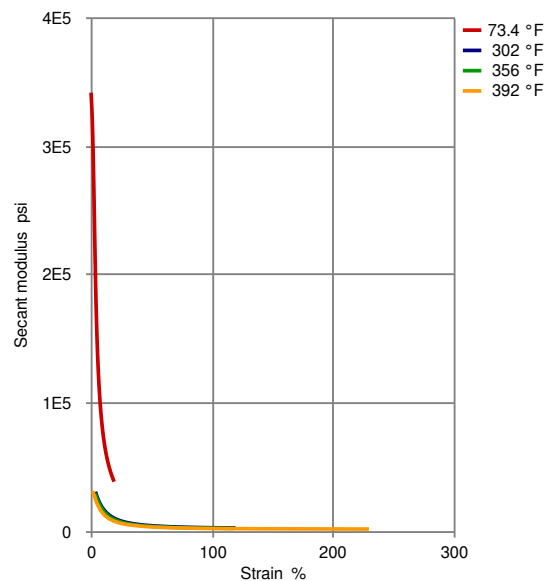
Thermal properties	Value	Unit	Test Standard
Limiting oxygen index (LOI)	43.5	%	ISO 4589-1/-2
Flammability at thickness h	V-0	class	UL 94
thickness tested (h)	0.1181	in	UL 94
CLTE below Tg, parallel	0.383	E-4/°F	ISO 11359-2
Start Temp	-22	°F	ISO 11359-2
End Temp	158	°F	ISO 11359-2
CLTE above Tg, parallel	0.722	E-4/°F	ISO 11359-2
Start Temp	230	°F	ISO 11359-2
End Temp	392	°F	ISO 11359-2
CLTE below Tg, normal	0.444	E-4/°F	ISO 11359-2
Start Temp	-22	°F	ISO 11359-2
End Temp	158	°F	ISO 11359-2
CLTE above Tg, normal	0.778	E-4/°F	ISO 11359-2
Start Temp	230	°F	ISO 11359-2
End Temp	392	°F	ISO 11359-2



Stress-strain

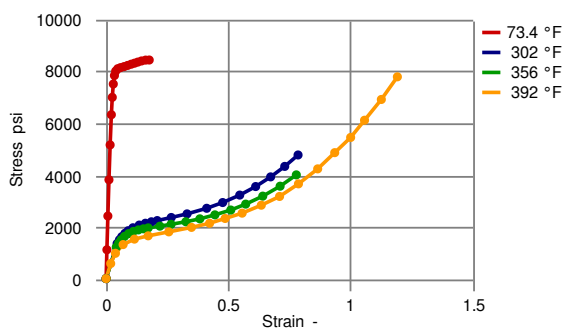


Secant modulus-strain



23 °C
 · 53.11 MPa at 10% strain
 · Yield at 4.876 strain, 53.986 stress
 150 °C
 · 12.10 MPa at 10% strain
 · Yield at 23.287 strain, 13.274 stress
 180 °C
 · 11.27 MPa at 10% strain
 · Yield at 18.814 strain, 11.899 stress
 200 °C
 · 9.31 MPa at 10% strain





23 °C
 · 57.05 MPa at 10% strain
 · Yield at 0.04761 strain, 55.911 stress
 150 °C
 · 13.16 MPa at 10% strain
 · Yield at 0.20934 strain, 15.454 stress
 180 °C
 · 12.24 MPa at 10% strain
 · Yield at 0.17239 strain, 13.509 stress
 200 °C
 · 10.13 MPa at 10% 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	212	°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



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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

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

Special Characteristics	Auto spec approved
Product Categories	Impact modified
Processing	Injection molding

Other Approvals

OEM	Specification
Ford	WSS-M4D1063-A1

