

FORTRON® FX4382T1 - PPS

Description

Unreinforced, impact-modified extrusion grade.

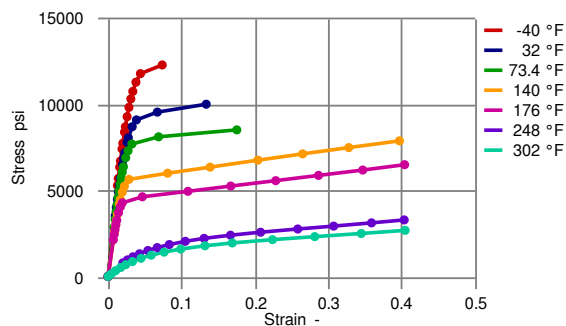
Fortron FX4382T1 is an impact-modified, unreinforced, extrusion/injection molding grade offering high tensile elongation.

Physical properties	Value	Unit	Test Standard
Density	78	lb/ft ³	ISO 1183
Molding shrinkage, parallel (flow)	0.9 - 1.4	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.7 - 1.4	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0.035	%	Sim. to ISO 62
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	333587	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	7250	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	25	%	ISO 527-1, -2
Flexural modulus, 23°C	348000	psi	ISO 178
Charpy impact strength, 23°C	NB	ft-lb/in ²	ISO 179/1eU
Charpy notched impact strength, 23°C	19	ft-lb/in ²	ISO 179/1eA
Charpy notched impact strength, -30°C	4.76	ft-lb/in ²	ISO 179/1eA
Compressive modulus	328000	psi	ISO 604
Compressive stress at 1% strain	3190	psi	ISO 604
Compressive stress at 6% strain	10100	psi	ISO 604
Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	212	°F	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0.333	E-4/°F	ISO 11359-2
Coeff. of linear therm expansion, normal	0.428	E-4/°F	ISO 11359-2
Specific heat	0.541	BTU/(lb·F)	ASTM E1461
Electrical properties	Value	Unit	Test Standard
Volume resistivity, 23°C	5E14	Ohm·m	IEC 62631-3-1
Comparative tracking index	PLC 4	-	UL 746



Diagrams

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	212	°F

Temperature	Value	Unit
Hopper temperature	68 - 86	°F
Feeding zone temperature	167 - 185	°F
Zone1 temperature	572 - 590	°F
Zone2 temperature	581 - 599	°F
Zone3 temperature	590 - 608	°F
Zone4 temperature	590 - 608	°F
Nozzle temperature	599 - 608	°F
Melt temperature	599 - 608	°F
Mold temperature	275 - 302	°F
Hot runner temperature	599 - 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



FORTRON® FX4382T1 - PPS

Other text information

Pre-drying

Yes

Injection molding

Drying - alternate: 82oC overnight.

Characteristics

Product Categories

Impact modified

Processing

Extrusion, Injection molding

