

FORTRON® DEV FX40T1 - PPS (EXPERIMENTAL)

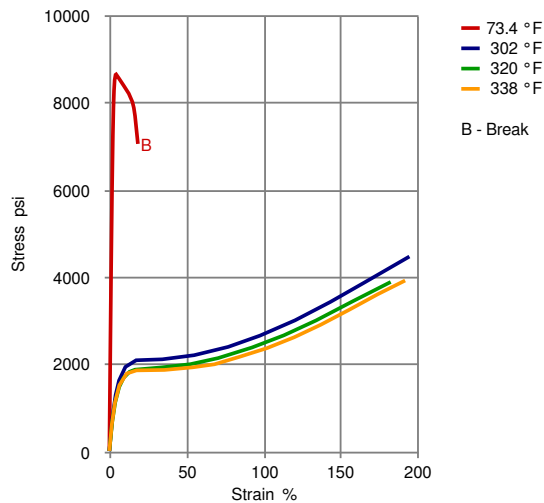
Description

Fortron® DEV FX40T1 is an unreinforced, impact-modified high toughness poly(phenylene sulfide)

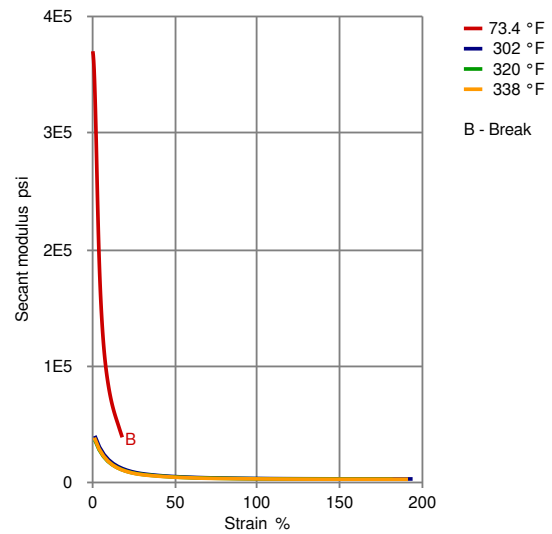
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	351717	psi	ISO 527-1, -2
Tensile stress at break, 50mm/min	6960	psi	ISO 527-1, -2
Tensile modulus, -40°C	415000	psi	ISO 527-1, -2
Tensile stress at yield, -40°C, 50mm/min	11600	psi	ISO 527-1, -2
Tensile stress at break, -40°C, 50mm/min	8560	psi	ISO 527-1, -2
Flexural modulus, 23°C	406000	psi	ISO 178
Flexural stress at 3.5% strain	12300	psi	ISO 178
Charpy notched impact strength, 23°C	23.8	ft-lb/in ²	ISO 179/1eA
Charpy notched impact strength, -30°C	4.76	ft-lb/in ²	ISO 179/1eA

Diagrams

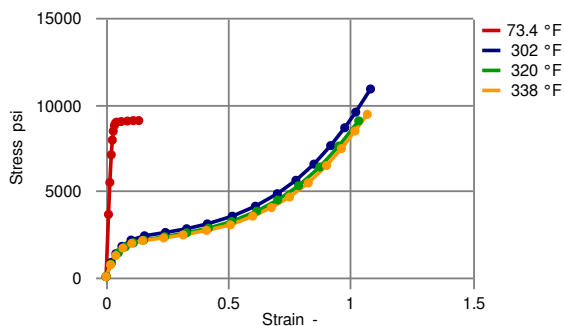
Stress-strain



Secant modulus-strain



True Stress-strain



23 °C yield at 0.04304 strain, 61.721 stress

No yield at 150, 160, 170 °C

Poisson's ratio used is 0.41

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
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

Characteristics

Product Categories	Impact modified
Processing	Blow molding, Extrusion