Celanese
The chemistry inside innovation™

FORTRON® 6150T4

Polyphenylene sulfide

Fortron 6150T4 is a 50% glass-fiber reinforced and mineral-filled grade with improved impact and thermal shock resistance.

Product information

Resin Identification	PPS-I-(GF+MD)50	ISO 1043
Part Marking Code	>PPS-I-(GF+MD)50<	ISO 11469

Rheological properties

Molding shrinkage, parallel	0.2	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2.32E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	24700	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.7	%	ISO 527-1/-2
Flexural modulus	2.25E6	psi	ISO 178
Flexural strength	37700	psi	ISO 178
Charpy impact strength, 23°C	23.8	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	4.76	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	536	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	194	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	523	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.07	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.222	E-4/°F	ISO 11359-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	0.0591	in	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.1181	in	IEC 60695-11-10
UL recognition	yes		UL 94
Glow Wire Flammability Index, 1.0mm	1760[OT]	°F	IEC 60695-2-12
Glow Wire Flammability Index, 2.0mm	1760[OT]	°F	IEC 60695-2-12
Glow Wire Ignition Temperature, 1.0mm	1430[OT]	°F	IEC 60695-2-13
Glow Wire Ignition Temperature, 2.0mm	1520[OT]	°F	IEC 60695-2-13
FMVSS Class	SE		ISO 3795 (FMVSS 302)

[OT]: One time tested

Electrical properties

Relative permittivity, 1000Hz	3.69		IEC 62631-2-1
Relative permittivity, 1MHz	3.67		IEC 62631-2-1
Dissipation factor, 1000Hz	20	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	20	E-4	IEC 62631-2-1

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Physical/Other properties

Water absorption, 2mm	0.02	%	Sim. to ISO 62
Density	0.0621	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	266	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	626	°F
Min. melt temperature	590	°F
Max. melt temperature	644	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	302	°F
Min. mold temperature	284	°F
Max. mold temperature	320	°F
Hold pressure range	4350 - 10200	psi
Back pressure	435	psi

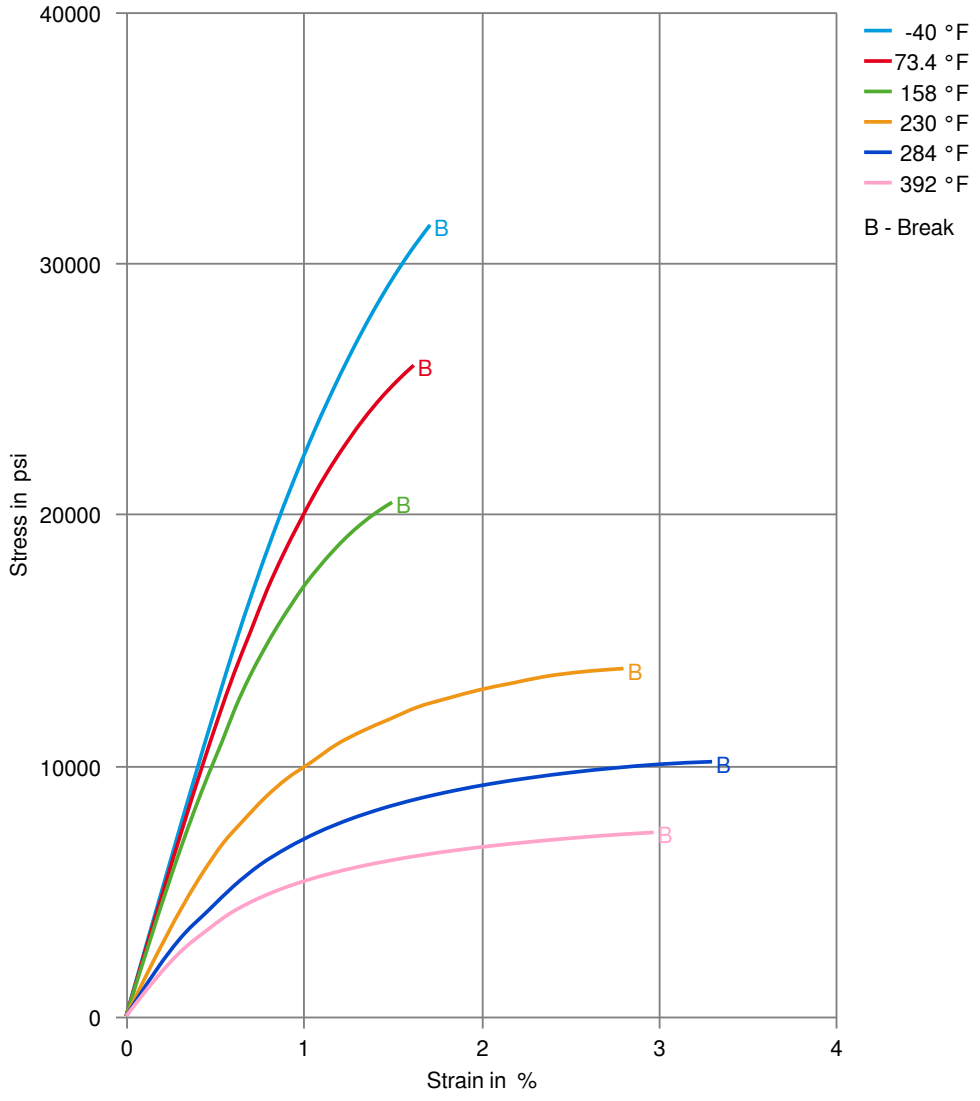
Characteristics

Processing	Injection Molding
Special characteristics	High impact or impact modified, Thermal shock resistant

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Polyphenylene sulfide

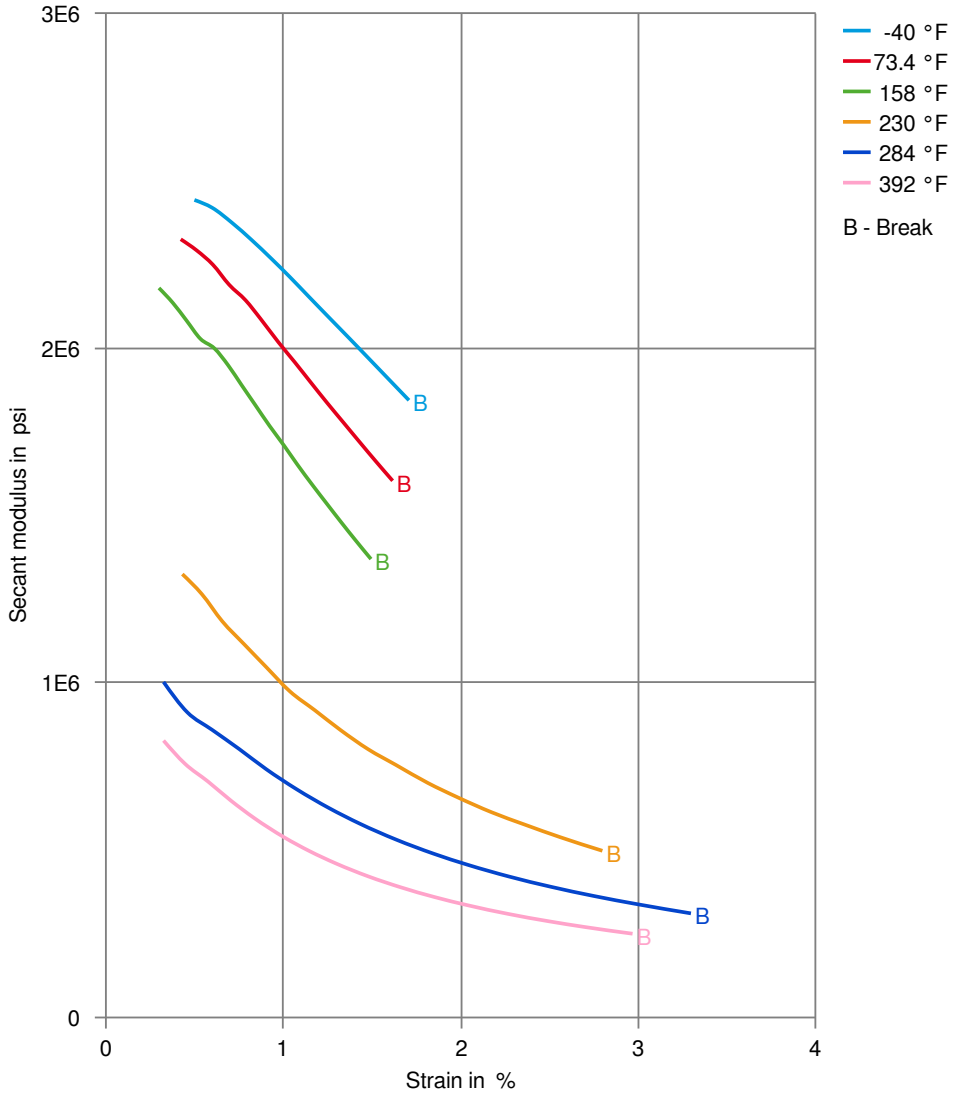
Stress-strain



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Secant modulus-strain



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