FORTRON® FX75T1 R

Polyphenylene sulfide

Fortron® FX75T1 R is an unreinforced, impact-modified poly(phenylene sulfide) with high melt viscosity suitable for extrusion.

Typical mechanical properties

Tensile modulus	218000	psi	ISO 527-1/-2
Tensile stress at break, 50mm/min	5800	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	80	%	ISO 527-1/-2
Flexural modulus	247000	psi	ISO 178
Flexural strength	7980	psi	ISO 178
Charpy notched impact strength, 23°C	>50	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	7.14	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	536	°F	ISO 11357-1/-3

Physical/Other properties

Density	0.0433	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	590	°F
Min. melt temperature	572	°F
Max. melt temperature	644	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	284	°F
Min. mold temperature	212	°F
Max. mold temperature	320	°F
Hold pressure range	4350 - 10200	psi
Back pressure	508	psi

Extrusion

Drying Temperature	≥176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Range	563 - 581	°F

Characteristics

Processing	Injection Molding, Other Extrusion

Additional information

Other extrusion

Preprocessing

Predrying in a dehumidified air dryer at 80°C / 3-4 hours is recommended.

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Processing Notes

Processing

On single-screw extruders with 15-25 D long multi-section screws, as are usual in the trade, the FORTRON is processable.

Extrusion temperature 295-305 °C

A medium extrusion rate is normally preferred.

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.

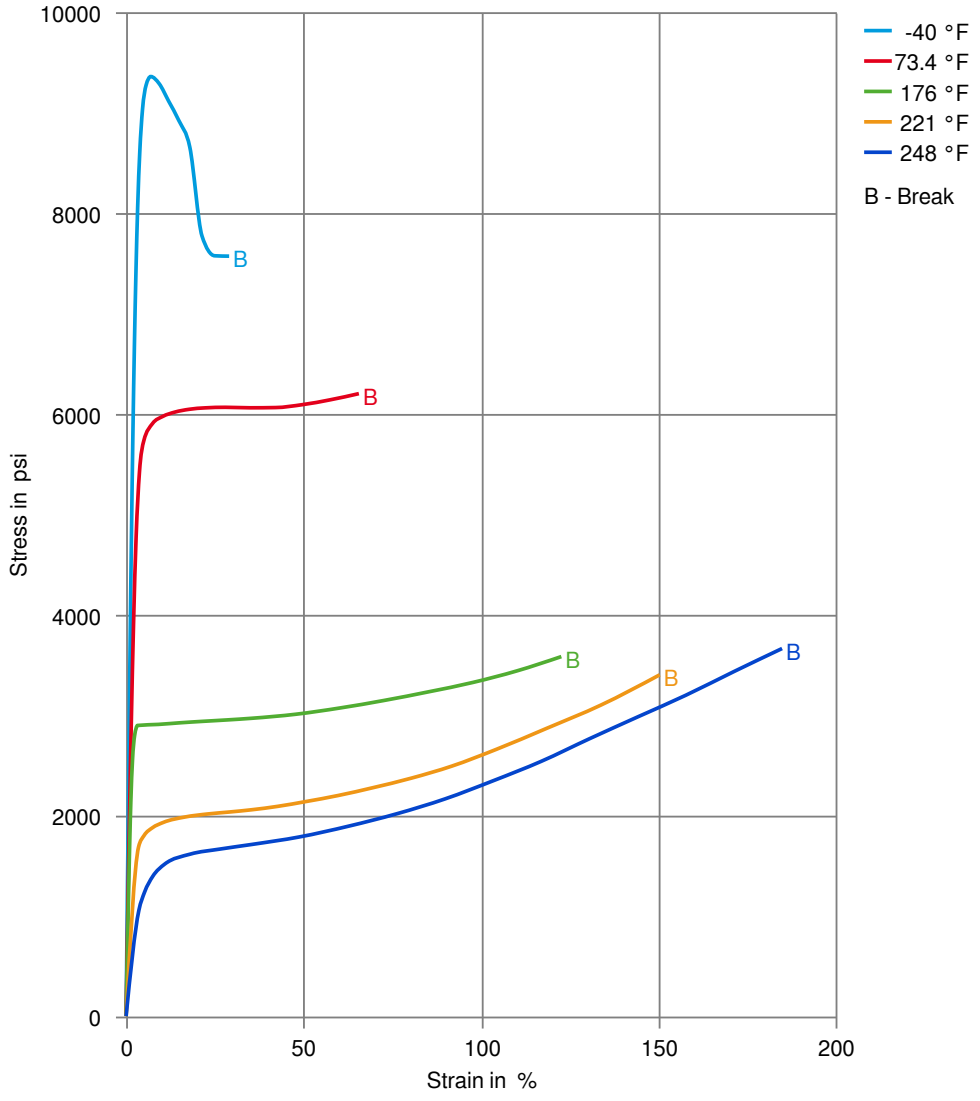
Storage

For subsequent storage the material should be stored dry in the dryer until processed (<= 60 h).

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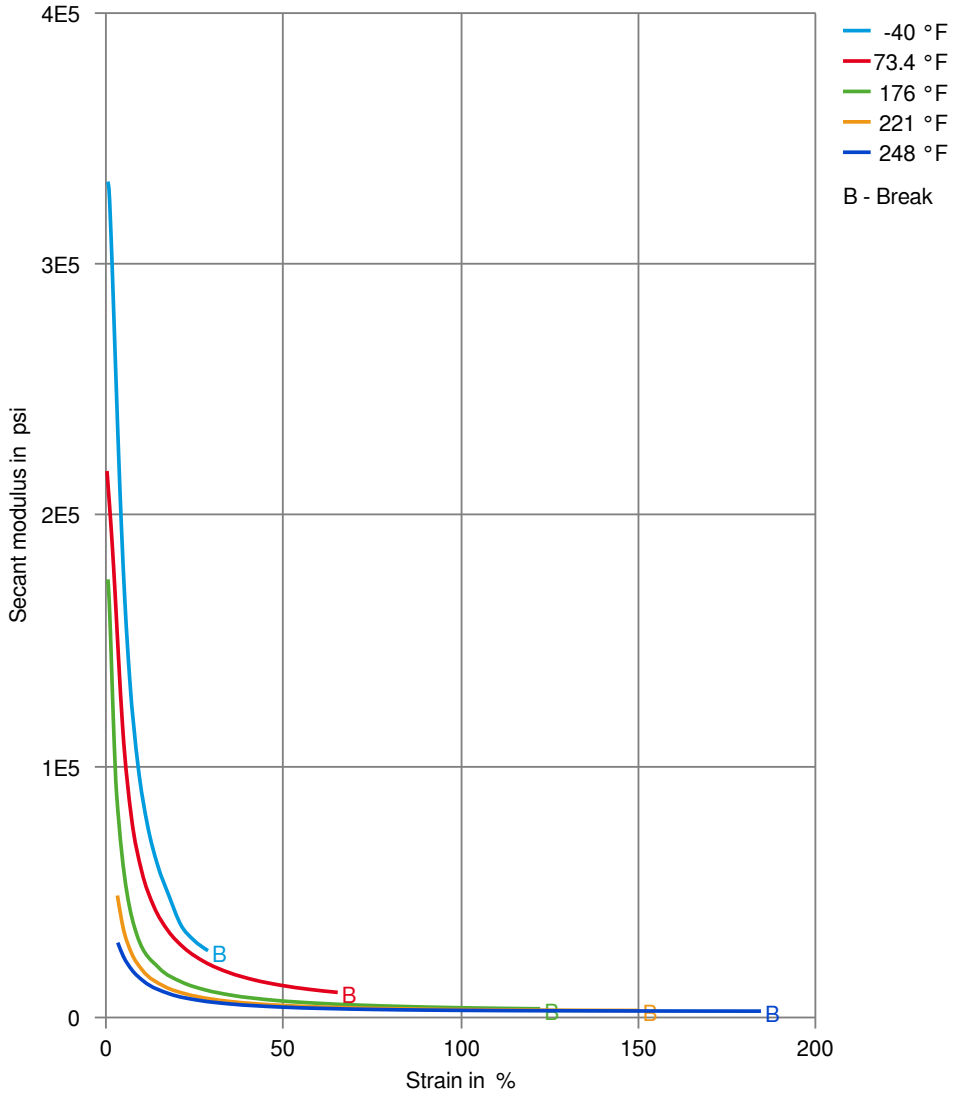
Stress-strain



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Secant modulus-strain



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