Celanese
The chemistry inside innovation™

FORTRON® FX20T1

Polyphenylene sulfide

Fortron® FX20T1 is an unreinforced, impact modified polyphenylene sulfide with good flowability for injection molding and extrusion.

Product information

Resin Identification	PPS-I	ISO 1043
Part Marking Code	>PPS-I<	ISO 11469

Typical mechanical properties

Tensile modulus	450000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	10000	psi	ISO 527-1/-2
Tensile stress at break, 50mm/min	8700	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	20	%	ISO 527-1/-2
Flexural modulus	450000	psi	ISO 178
Charpy notched impact strength, 23°C	2.38	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	212	°F	ISO 75-1/-2

Electrical properties

Volume resistivity	>1E13	Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	508	kV/in	IEC 60243-1

Physical/Other properties

Water absorption, 2mm	0.02	%	Sim. to ISO 62
Density	0.0473	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	248	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	608	°F
Min. melt temperature	572	°F
Max. melt temperature	626	°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	508	psi

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Characteristics

Processing	Injection Molding, Extrusion

Revised: 2026-09-08 Source: Celanese Materials Database

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