

FORTRON® FX4382T1

Polyphenylene sulfide

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

Product information Resin Identification Part Marking Code	PPS >PPS<		ISO 1043 ISO 11469
Rheological properties Moulding shrinkage range, parallel Moulding shrinkage range, normal	0.9 - 1.4 0.7 - 1.4		ISO 294-4, 2577 ISO 294-4, 2577
Typical mechanical properties Tensile modulus Tensile stress at break, 5mm/min Tensile strain at break, 5mm/min Flexural modulus Compressive modulus Compressive stress at 1% strain Charpy impact strength, 23°C Charpy notched impact strength, 23°C Charpy notched impact strength, -30°C Izod notched impact strength, 23°C Izod impact strength, 23°C Poisson's ratio Multiaxial impact, total energy, 23°C [OT]: One time tested [C]: Calculated	25 2400 2260 22 N 40 ^[OT] 10 ^[OT]	MPa % MPa MPa MPa kJ/m² kJ/m² kJ/m² kJ/m²	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 604 ISO 604 ISO 179/1eU ISO 179/1eA ISO 180/1A ISO 180/1U ASTM D 3763
Thermal properties Temperature of deflection under load, 1.8 MPa Coefficient of linear thermal expansion (CLTE), parallel Coefficient of linear thermal expansion (CLTE), normal Thermal conductivity, flow Thermal conductivity, through plane Effective thermal diffusivity, flow Effective thermal diffusivity, through plane Specific heat capacity of melt [OT]: One time tested	77 0.302 ^[OT] 0.31 ^[OT] 1.67E-7 ^[OT] 1.72E-7 ^[OT]	E-6/K E-6/K W/(m K) W/(m K) m ² /s	ISO 75-1/-2 ISO 11359-1/-2 ISO 11359-1/-2 ISO 22007-2 ISO 22007-2 ISO 22007-4 ISO 22007-4 ISO 22007-4
Electrical properties Volume resistivity Comparative tracking index Dielectric Constant, 1 GHz	5E14 150 3.3	Ohm.m	IEC 62631-3-1 IEC 60112 ASTM D 2520 B

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Physical/Other properties

Water absorption, 2mm	0.035 %	Sim. to ISO 62
Density	1260 kg/m ³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	130	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	330	°C
Min. melt temperature	310	°C
Max. melt temperature	340	°C
Screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	150	°C
Min. mould temperature	140	°C
Max. mould temperature	160	°C
Hold pressure range	30 - 70	MPa
Back pressure	3.5	MPa
Ejection temperature	217	°C

Additional information

Injection molding Processing

Drying - alternate: 82°C overnight.

Processing Notes Pre-Drying

Yes

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