

Fortron® FX4382T1

Polyphenylene Sulfide

Celanese Corporation

Message:

Fortron FX4382T1 is an impact-modified, unreinforced, extrusion grade offering high tensile elongation. Recommended processing conditions are identical to our standard unfilled grades.

General Information			
Additive	Impact modifier		
Features	Impact modification		
	Extended tensile rate		
RoHS Compliance	Contact manufacturer		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.26	g/cm ³	ASTM D792
--	1.28	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.70 - 1.4	%	ISO 294-4
Flow direction	0.90 - 1.4	%	ISO 294-4
Water Absorption (Saturation, 23°C)	0.035	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	41		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-40°C	3410	MPa	ASTM D638
23°C	2410	MPa	ASTM D638
121°C	345	MPa	ASTM D638
200°C	138	MPa	ASTM D638
--	2800	MPa	ISO 527-2/1A/1
Tensile Strength			
Yield, -40°C	86.9	MPa	ASTM D638
Yield, 23°C	53.9	MPa	ASTM D638
Yield, 121°C	12.6	MPa	ASTM D638
Fracture	50.0	MPa	ISO 527-2/1A/5
Tensile Elongation			
Yield, -40°C	6.0	%	ASTM D638
Yield, 23°C	6.0	%	ASTM D638
Yield, 121°C	30	%	ASTM D638

Fracture, -40°C	10	%	ASTM D638
Fracture, 23°C	25	%	ASTM D638
Fracture, 121°C	95	%	ASTM D638
Fracture, 204°C	96	%	ASTM D638
Fracture	25	%	ISO 527-2/1A/5
Coefficient of Friction (vs. Steel - Dynamic)	0.20		Internal method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	30	kJ/m ²	ISO 179/1eA
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, not annealed	81.7	°C	ASTM D648
1.8 MPa, not annealed	100	°C	ISO 75-2/A
Linear thermal expansion coefficient			ISO 11359-2
Flow	6.0E-5	cm/cm/°C	ISO 11359-2
Lateral	7.7E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	5.0E+16	ohms·cm	IEC 60093
Dielectric Constant (1.00 GHz)	3.30		ASTM D150
Comparative Tracking Index	150	V	IEC 60112
Injection	Nominal Value	Unit	
Drying Temperature	90.0 - 100	°C	
Drying Time	3.0 - 4.0	hr	
Hopper Temperature	20.0 - 30.0	°C	
Rear Temperature	290 - 300	°C	
Middle Temperature	300 - 310	°C	
Front Temperature	310 - 320	°C	
Nozzle Temperature	300 - 310	°C	
Processing (Melt) Temp	310 - 320	°C	
Mold Temperature	140 - 160	°C	
Injection Pressure	40.0 - 80.0	MPa	
Injection Rate	Fast		
Holding Pressure	30.0 - 60.0	MPa	
Back Pressure	0.00 - 3.00	MPa	
Injection instructions			

Manifold Temperature: 310 to 320°C Zone 4 Temperature: 310 to 320°C Feed Temperature: 60 to 80°C

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