

FORTRON® FX4382T1 | PPS | Impact Modified

Description

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

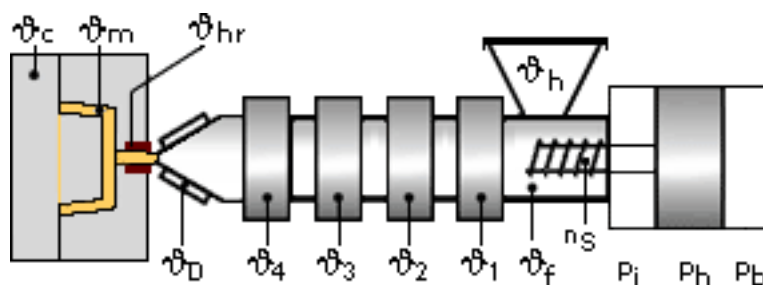
Physical properties	Value	Unit	Test Standard
Density	1280	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.9 to 1.4	%	ISO 294-4
Mold shrinkage - normal	0.7 to 1.4	%	ISO 294-4
Water absorption (23°C-sat)	0.035	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	2800	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	50	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	25	%	ISO 527-2/1A
Charpy notched impact strength @ 23°C	30.0	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
DTUL @ 1.8 MPa	100	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	0.6	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.77	E-4/°C	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Volume resistivity	5E14	Ohm*m	IEC 60093
Comparative tracking index CTI	150	-	IEC 60112

Typical injection moulding processing conditions



Pre Drying:

Yes

Drying time: 3 - 4 h

Drying temperature: 90 - 100 °C

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Temperature:

	ϕ _{Manifold}	ϕ _{Mold}	ϕ _{Melt}	ϕ _{Nozzle}	ϕ _{Zone4}	ϕ _{Zone3}	ϕ _{Zone2}	ϕ _{Zone1}	ϕ _{Feed}	ϕ _{Hopper}
min (°C)	310	140	310	300	310	310	300	290	60	20
max (°C)	320	160	320	310	320	320	310	300	80	30

Pressure:

	Inj press	Hold press	Back pressure
min (bar)	400	300	0
max (bar)	800	600	30

Speed:

Injection speed: fast

Screw speed

Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	-	120	75	50	-

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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed (+49 (0) 69 30516299 for Europe and +1 859-372-3244 for the Americas) for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

The products mentioned herein are not intended for use in medical or dental implants.

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