

FORTRON® 6150T6 | PPS | Specialty

Description

Fortron 6150T6 is a 50% glass-fiber reinforced and mineral-filled grade with improved impact and heat shock resistance.

Physical properties	Value	Unit	Test Standard
Density	1750	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.1 - 0.2	%	ISO 294-4
Mold shrinkage - normal	0.4 - 0.5	%	ISO 294-4

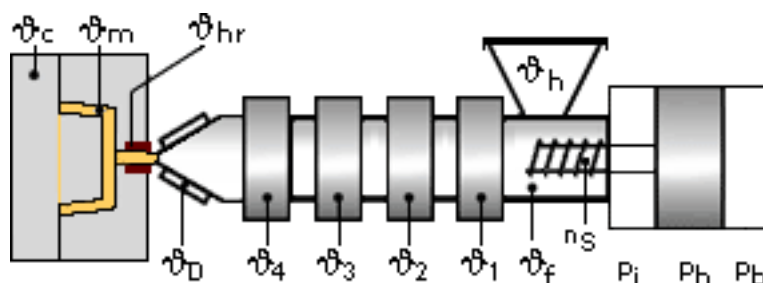
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	13000	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	140	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	1.6	%	ISO 527-2/1A
Flexural modulus (23°C)	12300	MPa	ISO 178
Flexural stress @ break	200	MPa	ISO 178
Charpy impact strength @ 23°C	40.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	8.0	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	280	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	270	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	0.15	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.43	E-4/°C	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Volume resistivity	>1E13	Ohm*m	IEC 60093
Comparative tracking index CTI	175	-	IEC 60112

Test specimen production	Value	Unit	Test Standard
Injection molding melt temperature	310 - 340	°C	ISO 294
Injection molding mold temperature	135 - 160	°C	ISO 294

Typical injection moulding processing conditions



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Pre Drying:

Necessary low maximum residual moisture content: 0.02%

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 $\leq -30^{\circ}\text{C}$. The time between drying and processing should be as short as possible.

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

Drying time: 3 - 4 h

Drying temperature: 130 - 140 °C

Temperature:

	Manifold	Mold	Melt	Nozzle	Zone4	Zone3	Zone2	Zone1	Feed	Hopper
min (°C)	330	140	330	310	330	330	310	290	60	20
max (°C)	340	160	340	330	340	340	320	300	80	30

Pressure:

	Inj press	Hold press	Back pressure
min (bar)	500	300	0
max (bar)	1000	700	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.

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