FORTRON® 1140L0 | PPS | Glass Reinforced

Description

Fortron 1140L0 is a 40% glass-reinforced extrusion grade. It exhibits excellent heat and chemical resistance, good electrical properties and is inherently flame-retardant. The high hardness and rigidity at elevated temperatures allows for good load bearing performance. This product has good weldability due to the modest filler level. 1140L0 is used to produce rods and slabs.

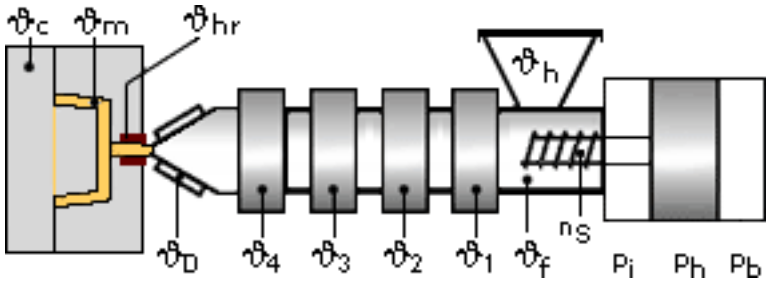
Physical properties	Value	Unit	Test Standard
Density	**1650**	kg/m³	ISO 1183
Water absorption (23°C-sat)	**0.02**	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile stress at break (5mm/min)	**185**	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	**1.9**	%	ISO 527-2/1A
Flexural modulus (23°C)	**14000**	MPa	ISO 178
Flexural stress @ break	**280**	MPa	ISO 178
Charpy notched impact strength @ 23°C	**10**	kJ/m²	ISO 179/1eA
Charpy notched impact strength @ -30°C	**10**	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	**280**	°C	ISO 11357-1,-2,-3
Glass transition temperature (10°C/min)	**90**	°C	ISO 11357-1,-2,-3
Flammability @1.6mm nom. thickn.	**V-0**	class	UL94
thickness tested (1.6)	**1.5**	mm	UL94
Flammability at thickness h	**V-0**	class	UL94
thickness tested (h)	**0.38**	mm	UL94

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



Pre Drying:

Necessary low maximum residual moisture content: 0.02%

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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 =< - 30° 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:

	ϑ Manifold	ϑ Mold	ϑ Melt	ϑ Nozzle	ϑ Zone4	ϑ Zone3	ϑ Zone2	ϑ Zone1	ϑ Feed	ϑ 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

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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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