

## FORTRON® 1130L0 | PPS | Glass Reinforced

### Description

Fortron 1130L0 is a 30% 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. 1130L0 is used to produce rods and slabs.

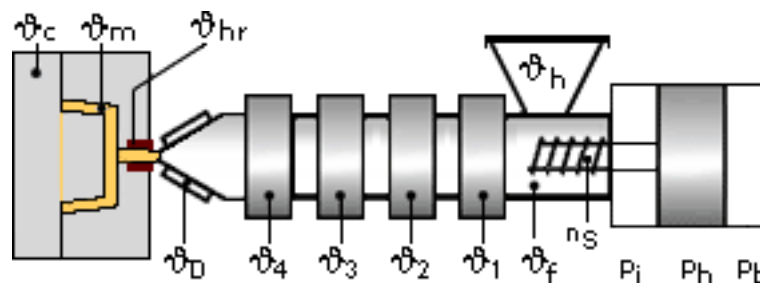
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	<b>11000</b>	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	<b>160</b>	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	<b>2</b>	%	ISO 527-2/1A
Flexural modulus (23°C)	<b>10400</b>	MPa	ISO 178
Flexural strength (23°C)	<b>255</b>	MPa	ISO 178
Charpy notched impact strength @ 23°C	<b>10</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength @ -30°C	<b>10</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Notched impact strength (Izod) @ 23°C	<b>9.5</b>	kJ/m <sup>2</sup>	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	<b>280</b>	°C	ISO 11357-1,-2,-3
Glass transition temperature (10°C/min)	<b>90</b>	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	<b>255</b>	°C	ISO 75-1/-2
Flammability at thickness h	<b>V-0</b>	class	UL94
thickness tested (h)	<b>0.38</b>	mm	UL94

Electrical properties	Value	Unit	Test Standard
Volume resistivity	<b>1E16</b>	Ohm*m	IEC 60093
Surface resistivity	<b>1E16</b>	Ohm	IEC 60093

Test specimen production	Value	Unit	Test Standard
Injection molding melt temperature	<b>310 - 340</b>	°C	ISO 294
Injection molding mold temperature	<b>135 - 160</b>	°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 ( $\leq 60$  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	-

## Contact Information

### Americas

Ticona North American Headquarters  
Product Information Service  
8040 Dixie Highway  
Florence, KY 41042  
USA  
Tel.: +1-800-833-4882  
Tel.: +1-859-372-3244  
email: [prodinfo@ticona.com](mailto:prodinfo@ticona.com)  
Ticona on the web: [www.ticona.com](http://www.ticona.com)

#### Customer Service

Tel.: +1-800-526-4960  
Tel.: +1-859-372-3214  
Fax: +1-859-372-3125

### Europe

Ticona GmbH  
Information Service  
Tel.: +49 (0) 180-5842662 (Germany)  
+49 (0) 69-30516299 (Europe)  
Fax: +49 (0) 180-2021202 (Germany & Europe)  
email: [infoservice@ticona.de](mailto:infoservice@ticona.de)  
Internet: [www.ticona.com](http://www.ticona.com)

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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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