Celanese
The chemistry inside innovation™

FORTRON® 1115L0 - PPS

Description

Fiberglass reinforced with high melt strength for blow molding & extrusion applications
Fortron® 1115L0 is a 15% fiberglass-reinforced grade of polyphenylene sulfide with high melt strength suitable for blow molding and extrusion applications. The recommended processing conditions are similar to those of our standard grades, except drying conditions are somewhat milder at 80 to 100 C for 3-4 hours.

Physical properties	Value	Unit	Test Standard
Density	**89.9**	lb/ft³	ISO 1183
Water absorption, 23 °C-sat	**0.02**	%	Sim. to ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	**1.12E6**	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	**17400**	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	**2**	%	ISO 527-1, -2
Flexural modulus, 23 °C	**1.09E6**	psi	ISO 178
Flexural strength, 23 °C	**29000**	psi	ISO 178
Charpy impact strength, 23 °C	**15.2**	ft-lb/in²	ISO 179/1eU
Charpy notched impact strength, 23 °C	**2.38**	ft-lb/in²	ISO 179/1eA
Izod impact notched, 23 °C	**2.47**	ft-lb/in²	ISO 180/1A
Ball indentation hardness, 30s	**32900**	psi	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	**428**	°F	ISO 75-1, -2
DTUL at 8.0 MPa	**239**	°F	ISO 75-1, -2
Flammability at thickness h	**V-0**	class	UL 94
thickness tested (h)	**0.0295**	in	UL 94

Electrical properties	Value	Unit	Test Standard
Surface resistivity, 23 °C	**>1E15**	Ohm	IEC 62631-3-2

Diagrams

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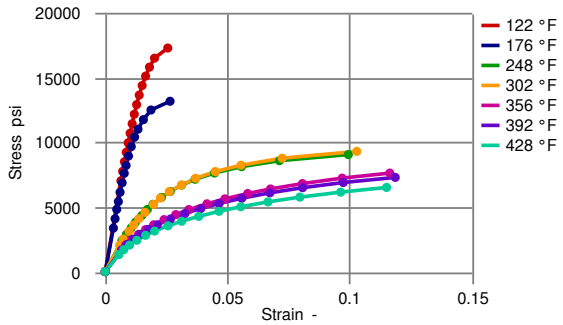
True Stress-strain



Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	**0.02**	%
Drying time	**3 - 4**	h
Drying temperature	**212 - 284**	°F

Temperature	Value	Unit
Hopper temperature	**68 - 86**	°F
Feeding zone temperature	**140 - 176**	°F
Zone1 temperature	**554 - 572**	°F
Zone2 temperature	**590 - 608**	°F
Zone3 temperature	**626 - 644**	°F
Zone4 temperature	**626 - 644**	°F
Nozzle temperature	**590 - 626**	°F
Melt temperature	**626 - 644**	°F
Mold temperature	**284 - 320**	°F
Hot runner temperature	**626 - 644**	°F

Pressure	Value	Unit
Back pressure max.	**30**	bar

Speed	Value
Injection speed	**fast**

Screw Speed	Value	Unit
Screw speed diameter, 25mm	**120**	RPM
Screw speed diameter, 40mm	**75**	RPM
Screw speed diameter, 55mm	**50**	RPM

Other text information

Pre-drying

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.

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Longer pre-drying times/storage

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

Characteristics

Special Characteristics	Flame retardant
Product Categories	Specialty
Processing	Blow molding, Extrusion

General Disclaimer

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