Celanese
The chemistry inside innovation™

FORTRON® 1140L0 - PPS

Description

40% Glass reinforced extrusion grade, strong and tough, V-0
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	**103**	lb/ft³	ISO 1183
Water absorption, 23°C-sat	**0.02**	%	Sim. to ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile stress at break, 5mm/min	**26800**	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	**1.8**	%	ISO 527-1, -2
Flexural modulus, 23°C	**2.03E6**	psi	ISO 178
Flexural stress at break	**40600**	psi	ISO 178
Charpy notched impact strength, 23°C	**4.76**	ft-lb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	**4.76**	ft-lb/in²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	**536**	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	**194**	°F	ISO 11357-1,-2,-3
Flammability @1.6mm nom. thickn.	**V-0**	class	UL 94
thickness tested (1.6)	**0.1**	in	UL 94
Flammability at thickness h	**V-0**	class	UL 94
thickness tested (h)	**0.0150**	in	UL 94

Electrical properties	Value	Unit	
Comparative tracking index	**PLC 4**		UL 746

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

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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.

Longer pre-drying times/storage

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

Characteristics

Special Characteristics	Chemical resistant, Flame retardant, Heat resistant
Product Categories	Glass reinforced
Processing	Extrusion, Injection molding, Other extrusion
Delivery Form	Pellets
Additives	Release agent