

FORTRON® 1140L0 - PPS

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/m ³	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 at break	280	MPa	ISO 178
Charpy notched impact strength, 23°C	10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	10	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	280	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	90	°C	ISO 11357-1,-2,-3
Flammability @1.6mm nom. thickn. thickness tested (1.6)	V-0 1,5	class mm	UL 94 UL 94
Flammability at thickness h thickness tested (h)	V-0 0,38	class mm	UL 94 UL 94

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	Value	Unit	Test Standard
Necessary low maximum residual moisture content	0,02	%	-
Drying time	3 - 4	h	-
Drying temperature	130 - 140	°C	-
Temperature	Value	Unit	Test Standard
Hopper temperature	20 - 30	°C	-
Feeding zone temperature	60 - 80	°C	-
Zone1 temperature	290 - 300	°C	-
Zone2 temperature	310 - 320	°C	-
Zone3 temperature	330 - 340	°C	-
Zone4 temperature	330 - 340	°C	-
Die temperature	310 - 330	°C	-
Melt temperature	330 - 340	°C	-
Cavity temperature	140 - 160	°C	-
Hot runner temperature	330 - 340	°C	-
Pressure	Value	Unit	Test Standard
Back pressure max.	30	bar	-
Speed	Value	Unit	Test Standard
Injection speed	fast	-	-
Screw Speed	Value	Unit	Test Standard
Screw speed diameter, 25mm	120	RPM	-
Screw speed diameter, 40mm	75	RPM	-
Screw speed diameter, 55mm	50	RPM	-

Other text information

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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 $\leq -30^{\circ}\text{C}$. 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 ($\leq 60\text{ h}$).

Characteristics

Product Categories

Glass reinforced

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