Celanese
The chemistry inside innovation™

FORTRON® 1140L0

Polyphenylene sulfide

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.

Product information

Resin Identification	PPS-GF40	ISO 1043
Part Marking Code	>PPS-GF40<	ISO 11469

Typical mechanical properties

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	2.03E6	psi	ISO 178
Flexural strength	40600	psi	ISO 178
Charpy notched impact strength, 23°C	4.76	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	4.76	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	536	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	194	°F	ISO 11357-1/-3

Flammability

Burning Behav. at 1.5mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	0.0591	in	IEC 60695-11-10
Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.0150	in	IEC 60695-11-10

Physical/Other properties

Water absorption, 2mm	0.02	%	Sim. to ISO 62
Density	0.0596	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	626	°F
Min. melt temperature	590	°F
Max. melt temperature	644	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	302	°F
Min. mold temperature	284	°F
Max. mold temperature	320	°F
Hold pressure range	4350 - 10200	psi
Back pressure	435	psi

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Characteristics

Processing	Injection Molding, Extrusion, Other Extrusion
Additives	Release agent
Special characteristics	Flame retardant, Heat stabilized or stable to heat, Chemical resistant

Additional information

Processing Notes

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.

Storage

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

Processing Notes

The higher drying conditions result in higher melt viscosity.

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