



FORTRON® 9141L4

Polyphenylene sulfide

Fortron 9141L4 is a 40% glass-reinforced PPS that has excellent heat and chemical resistance, inherently flame-retardant, high hardness and a good balance of strength and stiffness. This grade exhibits low flash and is typically used in applications with thicker walls and shorter flow lengths.

Product information

1 Toddot imorriation			
Resin Identification Part Marking Code	PPS-GF40 >PPS-GF40<		ISO 1043 ISO 11469
Rheological properties			
Moulding shrinkage range, parallel Moulding shrinkage range, normal	0.2 - 0.6 0.4 - 0.6		ISO 294-4, 2577 ISO 294-4, 2577
Typical mechanical properties			
Tensile modulus	15500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min		MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.9		ISO 527-1/-2
Flexural modulus	14800		ISO 178
Flexural strength		MPa	ISO 178
Charpy impact strength, 23°C		kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C		kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C		kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C		kJ/m ²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]	110/111	100 170/10/1
[C]: Calculated	0.00		
[O]. Galculated			
Thermal properties			
Melting temperature, 10°C/min	280	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	90	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	270	°C	ISO 75-1/-2
Flammability			
Burning Behav. at 1.5mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.38	mm	IEC 60695-11-10
Physical/Other properties			
	0.00	0.4	0' . 100.00
Water absorption, 2mm	0.02		Sim. to ISO 62
Density	1650	kg/m ³	ISO 1183
Injection			
Drying Recommended	yes		
Drying Temperature	130	°C	
Drying Time, Dehumidified Dryer	2 - 4		
Processing Moisture Content	≤0.02		
Melt Temperature Optimum	330		
	300	-	

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Min. melt temperature	310	°C
Max. melt temperature	340	°C
Screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	150	°C
Min. mould temperature	140	°C
Max. mould temperature	160	°C
Hold pressure range	30 - 70	MPa
Back pressure	3	MPa

Characteristics

Processing Injection Moulding

Delivery form Pellets

Additives Release agent

Special characteristics Flame retardant, Heat stabilised 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.

The pre-drying conditions can influence the flow (melt viscosity) of the material significantly. The drying temperature can be subject of optimization for flow of the material depending on the injection molding process and the tool- or part design.

Storage

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

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