Celanese
The chemistry inside innovation™

FORTRON® FX515T1

Polyphenylene sulfide

Fortron® FX515T1 is a 15% glass filled, impact modified PPS grade with good impact resistance suitable for injection molding and food contact applications

Product information

Resin Identification	PPS-GF15	ISO 1043
Part Marking Code	>PPS-GF15<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.6	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.3	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	6000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.1	%	ISO 527-1/-2
Flexural modulus	5800	MPa	ISO 178
Flexural strength	150	MPa	ISO 178
Flexural strain at failure	3.1	%	ISO 178
Charpy impact strength, 23 °C	40	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23 °C	10	kJ/m²	ISO 179/1eA
Poisson's ratio	0.35[C]		

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	220	°C	ISO 75-1/-2

Physical/Other properties

Density	1370	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	130	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	330	°C
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	3.5	MPa
Ejection temperature	196	°C

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Additional information

Processing Notes

Pre-Drying

Fortron should be pre-dried. Because of the necessary low maximum residual moisture content, the use of dry air dryers is recommended. The dew point should be </=-30 deg C. the time between drying and processing should be as short as possible. Normal drying time is 3-4 hrs at 121 deg C but for drying overnight temp should be reduced to 90 deg C.

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