

Fortron 4332L6 is a glass fiber/mineral filled injection molding grade material.

Fortron 4332L6 is a glass fiber/mineral filled injection molding grade, which is intended for applications requiring improved tensile and flexural properties, when compared to other GF/MIN reinforced PPS grades. The recommended processing parameters are similar to the standard grades.

Rheological properties

Moulding shrinkage range, parallel	0.2 - 0.6 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.3 - 0.7 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	22500	MPa	ISO 527-1/-2
Stress at break, 5mm/min	160	MPa	ISO 527-1/-2
Strain at break, 5mm/min	1.2	%	ISO 527-1/-2
Flexural Modulus	21000	MPa	ISO 178
Flexural Strength	260	MPa	ISO 178
Charpy impact strength, 23°C	30	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.5	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	6.1	kJ/m²	ISO 179/1eA
Poisson's ratio	0.309		

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
Temp. of deflection under load, 1.8 MPa	270	°C	ISO 75-1/-2
Temp. of deflection under load, 8 MPa	220	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	12	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	45	E-6/K	ISO 11359-1/-2
Thermal conductivity in plane, in flow	0.63	W/(m K)	ASTM E 1461
Thermal conductivity in plane, cross flow	0.58	W/(m K)	ASTM E 1461
Thermal conductivity through plane	0.6	W/(m K)	ASTM E 1461

Flammability

Burning Behav. at 1.5mm nom. thickn.	V-0 cla	ass	UL 94
Burning rate, Thickness 1 mm	SE/0 mr	m/min	ISO 3795 (FMVSS 302)

Electrical properties

Comparative tracking index	PLC 4 PLC	UL 746A
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Other properties

Water absorption, 2mm	0.02 %	Sim. to ISO 62
Density	1950 kg/m³	ISO 1183

Injection

Drying Temperature	130 - 140	°C	
Drying Time, Dehumidified Dryer	3 - 4	h	
Processing Moisture Content	0.02	%	
Melt Temperature Optimum	335	°C	Internal
Screw tangential speed	0.14 - 0.16	m/s	
Max. mould temperature	140 - 160	°C	
Back pressure	3	MPa	
Injection speed	fast		

Additional information

Injection molding

On injection molding machines with 15-25 D long three-section screws, as are usual in the trade, the FORTRON is processable. A shut-off nozzle is preferred to a free-flow nozzle.

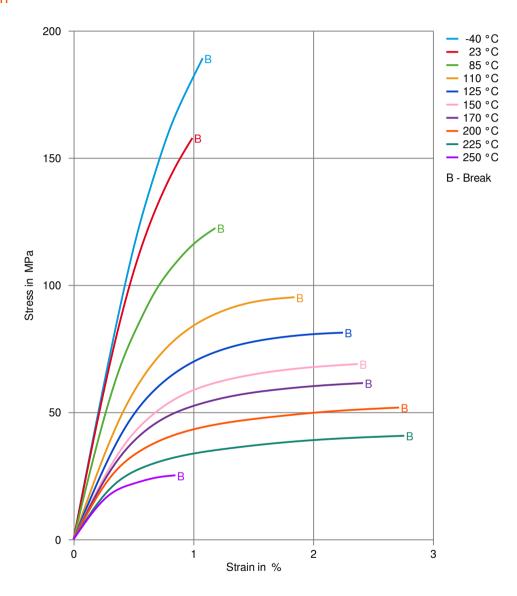
Melt temperature 320-340 degC Mold wall temperature at least 140 degC

A medium injection rate is normally preferred. All mold cavities must be effectively vented.

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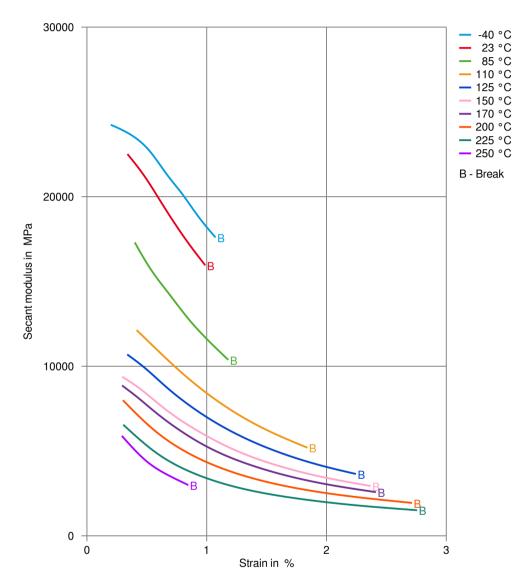
Stress-strain



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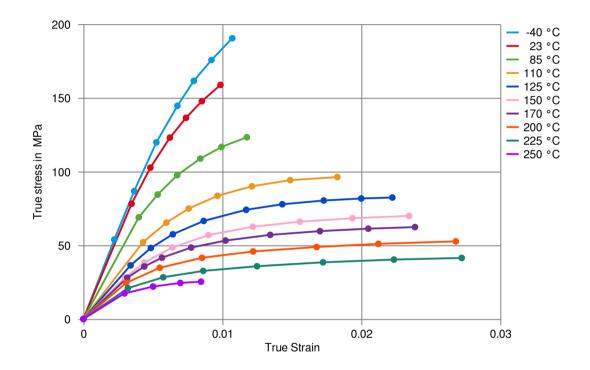
Secant modulus-strain



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True stress-strain



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Processing Texts

Injection molding

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Melt temperature 320-340 degC Mold wall temperature at least 140 degC

A medium injection rate is normally preferred. All mold cavities must be effectively vented.

Injection molding Preprocessing Predrying in a dehumidified air dryer at 130 - 140 degC/3-4 hours is

recommended.

Injection molding Postprocessing Tool temperature of at least 135 degC is recommended for parts to achieve

maximum crystallizable potential.

Other Approvals

Other Approvals

OEM	Specification	Additional Information
BMW	GS 93016	SD3002 Black
GM	GMW17519P-PPS- GF45MD20	Natural & Black

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Revised: 2023-07-28 Source: Celanese Materials Database

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