



FORTRON® ICE 716L

Polyphenylene sulfide

FORTRON ICE 716L is a 65% glass fiber-mineral reinforced polyphenylene sulfide with improved mechanical properties, that belongs to our new generation of Fortron® PPS.

This new technology allows optimization of molding conditions with faster cycle times. Due to the faster crystallization of the material at a higher temperature, the option of mold wall temperature reduction can be subject of advanced process optimization. The potential for optimization of Fortron® ICE by cycle time reduction is possible by standard cavity surface temperatures of 140 °C. The potential for lowering the mold temperature must be checked individually and it depends on process and part design.

Product information

Resin Identification	PPS-(GF+MD)6		ISO 1043
Part Marking Code	>PPS-(GF+MD)6	5<	ISO 11469
Rheological properties			
Moulding shrinkage range, parallel	0.2 - 0.5		ISO 294-4, 2577
Moulding shrinkage range, normal	0.3 - 0.6	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile modulus	21500		ISO 527-1/-2
Tensile stress at break, 5mm/min		MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.2		ISO 527-1/-2
Flexural modulus Flexural strength	21000	мРа МРа	ISO 178 ISO 178
Charpy impact strength, 23°C		kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C		kJ/m²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]		
[C]: Calculated			
Thermal properties			
Temperature of deflection under load, 1.8 MPa	270		ISO 75-1/-2
Temperature of deflection under load, 8 MPa	220		ISO 75-1/-2
Coefficient of linear thermal expansion	14	E-6/K	ISO 11359-1/-2
(CLTE), parallel Coefficient of linear thermal expansion (CLTE),	21	E-6/K	ISO 11359-1/-2
normal	31	E-0/K	130 11339-1/-2
Physical/Other properties			
Water absorption, 2mm	0.02	%	Sim. to ISO 62
Density	1950	kg/m³	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		
Min. melt temperature Max. melt temperature	310 340		
wax. men temperature	340	U	

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Screw tangential speed 0.2 - 0.3 m/s

Mold Temperature Optimum 140 °C

Min. mould temperature 125 °C

Max. mould temperature 160 °C

Hold pressure range 30 - 70 MPa

Back pressure 3 MPa

Ejection temperature 239 °C

Characteristics

Processing Injection Moulding

Delivery form Pellets
Additives Nucleated

Special characteristics Flame retardant, High Flow

Automotive

OEM STANDARD

Hyundai MS244-02 Type A-2

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