

FORTRON® 6450A6

Polyphenylene sulfide

Fortron 6450A6 is a fiberglass reinforced, mineral filled alloy that exhibits improved wear and sliding properties versus standard Fortron compounds.

Product information

Resin Identification	PPS-(GF+MD)5 0	ISO 1043
Part Marking Code	>PPS-(GF+MD)50<	ISO 11469

Typical mechanical properties

Tensile modulus	11000 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	90 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.5 %	ISO 527-1/-2
Flexural modulus	11000 MPa	ISO 178
Flexural strength	130 MPa	ISO 178
Compressive strength	145 MPa	ISO 604
Charpy impact strength, 23°C	18 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	6 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	6 kJ/m ²	ISO 180/1A
Poisson's ratio	0.34 ^[C]	

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	260 °C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	200 °C	ISO 75-1/-2

Physical/Other properties

Water absorption, 2mm	0.02 %	Sim. to ISO 62
Density	1580 kg/m ³	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 MPa

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Characteristics

Processing

Injection Moulding

Special characteristics

Flame retardant, Low wear / Low friction, High Flow

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 $\leq -30^{\circ}\text{C}$. 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 ($\leq 60\text{ h}$).