

FORTRON® CES51

Polyphenylene sulfide

Fortron CES51 is a 20% glass reinforced PPS resin with low chlorine content. It offers excellent physical properties and good adhesion to metal with nano molding technology treatment.

Product information

Resin Identification	PPS-GF20	ISO 1043
Part Marking Code	>PPS-GF20<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.2 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.4 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	7200 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	110 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5 %	ISO 527-1/-2
Flexural modulus	7000 MPa	ISO 178
Flexural strength	180 MPa	ISO 178
Charpy impact strength, 23°C	50 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	17 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.35 ^[C]	

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	240 °C	ISO 75-1/-2
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Physical/Other properties

Density	1420 kg/m ³	ISO 1183
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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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Page: 2 of 2

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