

FORTRON® CES51 - PPS

Description

20% glass filled

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.

Physical properties	Value	Unit	Test Standard
Density	88.6	lb/ft ³	ISO 1183
Molding shrinkage, parallel (flow)	0.2	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.4	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	1.04E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	16000	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	2.5	%	ISO 527-1, -2
Flexural modulus, 23°C	1.02E6	psi	ISO 178
Flexural strength, 23°C	25400	psi	ISO 178
Charpy impact strength, 23°C	23.8	ft-lb/in ²	ISO 179/1eU
Charpy notched impact strength, 23°C	8.09	ft-lb/in ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	464	°F	ISO 75-1, -2

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	0.02	%
Drying time	3 - 4	h
Drying temperature	266 - 284	°F

Temperature	Value	Unit
Hopper temperature	68 - 86	°F
Feeding zone temperature	140 - 176	°F
Zone1 temperature	554 - 572	°F
Zone2 temperature	590 - 608	°F
Zone3 temperature	626 - 644	°F
Zone4 temperature	626 - 644	°F
Nozzle temperature	590 - 626	°F
Melt temperature	626 - 644	°F
Mold temperature	284 - 320	°F
Hot runner temperature	626 - 644	°F

Pressure	Value	Unit
Back pressure max.	30	bar

Speed	Value
Injection speed	fast

Screw Speed	Value	Unit
Screw speed diameter, 25mm	120	RPM
Screw speed diameter, 40mm	75	RPM
Screw speed diameter, 55mm	50	RPM

Characteristics



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Product Categories	Glass reinforced
Processing	Injection molding

