

CELANEX® 3300SW1

30% glass-fiber reinforced; tribological modified grade; for friction and wear applications
 Celanex 3300SW1 is a 30% glass filled PBT with excellent wear characteristics.

Product information

Part Marking Code	(PBT+PTFE)-GF30	ISO 11469
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Rheological properties

Melt mass-flow rate	17 g/10min	ISO 1133
Melt mass-flow rate, Temperature	250 °C	
Melt mass-flow rate, Load	2.16 kg	
Moulding shrinkage range, parallel	0.3 - 0.5 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.7 - 0.9 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	9600 MPa	ISO 527-1/-2
Stress at break, 5mm/min	125 MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.8 %	ISO 527-1/-2
Flexural Modulus	8950 MPa	ISO 178
Flexural Strength	195 MPa	ISO 178
Charpy impact strength, 23°C	50 kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	8 kJ/m²	ISO 179/1eA
Hardness, Rockwell, M-scale	88	ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	224 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	212 °C	ISO 75-1/-2

Other properties

Density	1620 kg/m³	ISO 1183
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Injection

Drying Temperature	120 - 130 °C
Drying Time, Dehumidified Dryer	4 h
Processing Moisture Content	0.02 %
Max. mould temperature	65 - 93 °C
Injection speed	medium-fast

Additional information

Injection molding	Rear Temperature 450-470(230-240) deg F (deg C)
	Center Temperature 460-480(235-250) deg F (deg C)
	Front Temperature 470-500(240-260) deg F (deg C)
	Nozzle Temperature 480-500(250-260) deg F (deg C)
	Melt Temperature 460-500(235-260) deg F (deg C)



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Mold Temperature 150-200(65-93) deg F (deg C)
Back Pressure 0-50 psi
Screw Speed Medium
Injection Speed Fast

Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided, in particular for flame retardant grades.

Processing Texts

Pre-drying

To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level equal to or less than 0.02%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 250°F (121°C) for 4 hours.

Longer pre-drying times/storage

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.

Injection molding

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