

CELSTRAN® PBT-GF40-08

40% Long Glass Fiber Reinforced PBT
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Typical mechanical properties

Tensile Modulus	13600 MPa	ISO 527-1/-2
Stress at break, 5mm/min	180 MPa	ISO 527-1/-2
Strain at break, 5mm/min	1.85 %	ISO 527-1/-2
Flexural Modulus	12700 MPa	ISO 178
Flexural Strength	270 MPa	ISO 178
Charpy notched impact strength, 23°C	32 kJ/m ²	ISO 179/1eA

Thermal properties

Temp. of deflection under load, 1.8 MPa	225 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	226 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	16 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	87 E-6/K	ISO 11359-1/-2

Other properties

Density	1610 kg/m ³	ISO 1183
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Injection

Drying Temperature	120 - 140 °C
Drying Time, Dehumidified Dryer	2 - 4 h

Additional information

Injection molding

Celstran can be processed on a standard injection molding unit.
 A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering.
 A free flowing check ring assembly is recommended.

Melt Temp.: 280 - 300° C.
 Mold Temp.: 80 - 90° C.

Processing Texts

Pre-drying

CELSTRAN PBT 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 ≤ -30°C. The time between drying and processing should be as short as possible

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Melt Temp.: 280 - 300° C.

Mold Temp.: 80 - 90° C.

Injection molding Preprocessing

PBT Drying Requirements: 4 hrs. @ 120° C.

A dehumidifier or desiccant dryer is recommended.

