

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	13700 / 10000	MPa	ISO 527
^[C] Stress at break	190 / 160	MPa	ISO 527
^[C] Strain at break	1.6 / 2	%	ISO 527
^[C] Charpy impact strength, +23°C	40 / 45	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	41 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	23 / 18	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	23 / -	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	261 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	255 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 8.00 MPa	240 / *	°C	ISO 75-1/-2

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Density	- / 1460	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4	h	-
Melt temperature	300 - 315	°C	-
Mold temperature	90 - 120	°C	-

Characteristics

Processing

Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion, Blow Molding, Transfer Molding

Delivery form

Pellets

Additives

Lubricants

Special Characteristics

Heat stabilized or stable to heat

Features

Long fiber reinforced

Regional Availability

North America, Europe, Asia Pacific

Other text information

Injection molding

It is recommended to dry in a dehumidifying dryer: 4 hours at 80 °C.

During the processing of CELSTRAN it is important to watch and control melt shear, for excessive shear reduces fiber length and mechanical performance as well.

Processing recommendation:

- Conventional 3 zone screw, screw diameter minimum 40 mm
- Design flow channels for low melt shear
- Back pressure and screw rotation to realize a continuous plastification performance and thus a homogeneous melt.
- Apply higher temperature settings than for short fiber compounds

Melt temperature (in the screw anteroom) 300-315 °C

Mold surface temperature 90-120 °C