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CELSTRAN® TPU-GF50-01 AD3002 BLACK

CELSTRAN® Long Fibre

50% long strand fiber glass reinforced thermoplastic polyurethane

Product information

Resin Identification	TPU-LGF50	ISO 1043
Part Marking Code	>TPU-LGF50<	ISO 11469

Typical mechanical properties

Tensile modulus	14300	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	195	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.7	%	ISO 527-1/-2
Flexural modulus	13400	MPa	ISO 178
Flexural strength	320	MPa	ISO 178
Charpy notched impact strength, 23°C	47	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	66	kJ/m²	ISO 180/1A
Poisson's ratio	0.33[C]		

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	96	°C	ISO 75-1/-2

Physical/Other properties

Density	1630	kg/m³	ISO 1183

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	Low Warpage

Additional information

Injection molding

Preprocessing

Polyurethane material drying requirements: 4 hrs. @80° C.
A dehumidifier or desiccant dryer is recommended.

Processing

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: 260-265°C.
Mold Temp: 70- 75°C.

Processing Notes

Pre-Drying

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CELSTRAN TPU 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

Revised: 2024-07-12 Source: Celanese Materials Database