

CELSTRAN® TPU-GF30-01 AD3002 Black

30% long strand glass fiber reinforced thermoplastic polyurethane
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Typical mechanical properties

Tensile Modulus	1.22E6 psi	ISO 527-1/-2
Stress at break, 5mm/min	22500 psi	ISO 527-1/-2
Strain at break, 5mm/min	2.2 %	ISO 527-1/-2
Flexural Modulus	1.09E6 psi	ISO 178
Flexural Strength	33400 psi	ISO 178
Charpy notched impact strength, 23°C	13.3 ftlb/in ²	ISO 179/1eA

Thermal properties

Temp. of deflection under load, 1.8 MPa	185 °F	ISO 75-1/-2
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Other properties

Density	12 lb/gal	ISO 1183
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Injection

Drying Temperature	176 °F
Drying Time, Dehumidified Dryer	4 h
Processing Moisture Content	0.05 %
Max. mould temperature	158 - 194 °F

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: 245-255°C.
 Mold Temp: 70- 75°C.

Processing Texts

Pre-drying
 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

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Mold Temp: 70- 75°C.

Injection molding Preprocessing

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

