

CELSTRAN® TPU-GF50-01 AD3002 Black

50% long strand fiber glass reinforced thermoplastic urethane
 50% long strand fiber glass reinforced thermoplastic polyurethane

Typical mechanical properties

Tensile Modulus	2.07E6 psi	ISO 527-1/-2
Stress at break, 5mm/min	28300 psi	ISO 527-1/-2
Strain at break, 5mm/min	1.7 %	ISO 527-1/-2
Flexural Modulus	1.94E6 psi	ISO 178
Flexural Strength	46400 psi	ISO 178
Charpy notched impact strength, 23°C	22.4 ftlb/in ²	ISO 179/1eA

Thermal properties

Temp. of deflection under load, 1.8 MPa	205 °F	ISO 75-1/-2
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Other properties

Density	14 lb/gal	ISO 1183
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Injection

Drying Temperature	176 °F	
Drying Time, Dehumidified Dryer	4 h	
Processing Moisture Content	0.05 %	
Melt Temperature Optimum	482 °F	Internal
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: 260-265°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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Melt Temp: 260-265°C.

Mold Temp: 70- 75°C.

Injection molding Preprocessing

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

