



# CELSTRAN® TPU-GF30-01 AD3002 BLACK CELSTRAN® Long Fibre

30% long strand glass fiber reinforced thermoplastic polyurethane

#### **Product information**

| Resin Identification | TPU-LGF30   | ISO 1043  |
|----------------------|-------------|-----------|
| Part Marking Code    | >TPU-LGF30< | ISO 11469 |

## Typical mechanical properties

| Tensile modulus                      | 8400                | MPa   | ISO 527-1/-2 |
|--------------------------------------|---------------------|-------|--------------|
| Tensile stress at break, 5mm/min     | 155                 | MPa   | ISO 527-1/-2 |
| Tensile strain at break, 5mm/min     | 2.2                 | %     | ISO 527-1/-2 |
| Flexural modulus                     | 7500                | MPa   | ISO 178      |
| Flexural strength                    | 230                 | MPa   | ISO 178      |
| Charpy notched impact strength, 23°C | 28                  | kJ/m² | ISO 179/1eA  |
| Izod notched impact strength, 23°C   |                     | kJ/m² | ISO 180/1A   |
| Poisson's ratio                      | 0.34 <sup>[C]</sup> |       |              |

[C]: Calculated

### Thermal properties

Temperature of deflection under load, 1.8 MPa 85 °C ISO 75-1/-2

## Physical/Other properties

Density 1430 kg/m<sup>3</sup> 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: 245-255 °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

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