

CELANEX® 2002-3

Medium melt flow, lubricated

Celanex 2002-3 is a general purpose, unreinforced polybutylene terephthalate with a good balance of mechanical properties and processability. Celanex 2002-3 is a medium flow material that contains an internal lubricant.

Rheological properties

Melt volume-flow rate	20 cm ³ /10min	ISO 1133
Temperature	250 °C	
Load	2.16 kg	
Viscosity number	140 cm ³ /g	ISO 307, 1157, 1628

Typical mechanical properties

Tensile Modulus	2500 MPa	ISO 527-1/-2
Yield stress, 50mm/min	60 MPa	ISO 527-1/-2
Yield strain, 50mm/min	4 %	ISO 527-1/-2
Strain at break, 50mm/min	>50 %	ISO 527-1/-2
Flexural Modulus	2500 MPa	ISO 178
Flexural Strength	80 MPa	ISO 178
Charpy impact strength, 23°C	NB kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	190 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	6 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	6 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	5.5 kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C	5.5 kJ/m ²	ISO 180/1A

Thermal properties

Temp. of deflection under load, 1.8 MPa	55 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	150 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	190 °C	ISO 306
Coeff. of linear therm. expansion, parallel	130 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	120 E-6/K	ISO 11359-1/-2

Other properties

Humidity absorption, 2mm	0.25 %	Sim. to ISO 62
Density	1310 kg/m ³	ISO 1183

Injection

Drying Temperature	120 - 130 °C
Drying Time, Dehumidified Dryer	4 h
Processing Moisture Content	0.02 %
Max. mould temperature	65 - 96 °C
Injection speed	medium-fast

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Characteristics

Additives

Release agent

Processing Texts

Pre-drying

To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level equal to or less than 0.02%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 250°F (121°C) for 4 hours.

Longer pre-drying times/storage

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.

Other Approvals

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OEM	Specification	Additional Information
Stellantis - Chrysler	CPN 4175	100% color match
Toyota		Color approved