

CELANEX® 1602Z

Lubricated extrusion grade

Celanex 1602Z is an internally lubricated, general purpose, unreinforced polybutylene terephthalate with a good balance of mechanical properties and processability.

Rheological properties

Melt mass-flow rate	13 g/10min	ISO 1133
Melt mass-flow rate, Temperature	250 °C	
Melt mass-flow rate, Load	2.16 kg	
Moulding shrinkage range, parallel	1.8 - 2.0 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	2550 MPa	ISO 527-1/-2
Yield stress, 50mm/min	60 MPa	ISO 527-1/-2
Yield strain, 50mm/min	5 %	ISO 527-1/-2
Stress at 50% strain	28 MPa	ISO 527-1/-2
Nominal strain at break	>50 %	ISO 527-1/-2
Flexural Modulus	2200 MPa	ISO 178
Flexural Strength	80 MPa	ISO 178
Charpy impact strength, 23°C	NB kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	210 kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	7 kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6.5 kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	5.5 kJ/m²	ISO 180/1A
Hardness, Rockwell, M-scale	72	ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	225 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	50 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	150 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	110 E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	HB class	UL 94
Thickness tested	0.75 mm	UL 94

Electrical properties

Relative permittivity, 100Hz	4	IEC 62631-2-1
Relative permittivity, 1MHz	3.5	IEC 62631-2-1
Dissipation factor, 100Hz	14 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	210 E-4	IEC 62631-2-1
Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15 Ohm	IEC 62631-3-2
Electric strength	23 kV/mm	IEC 60243-1

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Comparative tracking index

PLC 0 PLC

UL 746A

Other properties

Density

1310 kg/m³

ISO 1183

Injection

Drying Temperature

120 - 130 °C

Drying Time, Dehumidified Dryer

4 h

Processing Moisture Content

0.02 %

Max. mould temperature

65 - 93 °C

Back pressure

MPa

Injection speed

medium-fast

Characteristics

Additives

Release agent

Additional information

Injection molding

Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided. Up to 25% clean and dry regrind may be used.

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% prior to processing. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C). Typical drying conditions are 250°F (121°C) for 4 hours. For subsequent storage of material in the dryer until processed, drying temperature should be lowered to 100 deg C and material should not kept in dryer for more than 60 hrs.

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Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided. Up to 25% clean and dry regrind may be used.

Other Approvals

Other Approvals

OEM	Specification	Additional Information
Stellantis - Chrysler	CPN 2367	Natural
Stellantis - Chrysler	CPN 2442	Black
Stellantis - Chrysler	CPN 4478	Natural

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Stellantis - Chrysler

CPN 4479

Black
