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CELANEX® 1462Z

30% glass-fiber reinforced PBT; general purpose grade
Celanex 1462Z is a general purpose, 30% glass reinforced polybutylene terephthalate with a good balance of mechanical properties and processability.

Product information

Part Marking Code	PBT-GF30		ISO 11469

Rheological properties

Melt mass-flow rate	14	g/10min	ISO 1133
Moulding shrinkage range, parallel	0.3 - 0.5	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	10060	MPa	ISO 527-1/-2
Stress at break, 5mm/min	135	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.6	%	ISO 527-1/-2
Flexural Modulus	9560	MPa	ISO 178
Flexural Strength	210	MPa	ISO 178
Charpy notched impact strength, 23°C	9	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -40°C	8.4	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	9.2	kJ/m²	ISO 180/1A
Hardness, Rockwell, M-scale	90		ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	60	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	207	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	225	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	23	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	140	E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	0.80	mm	UL 94

Other properties

Density	1520	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

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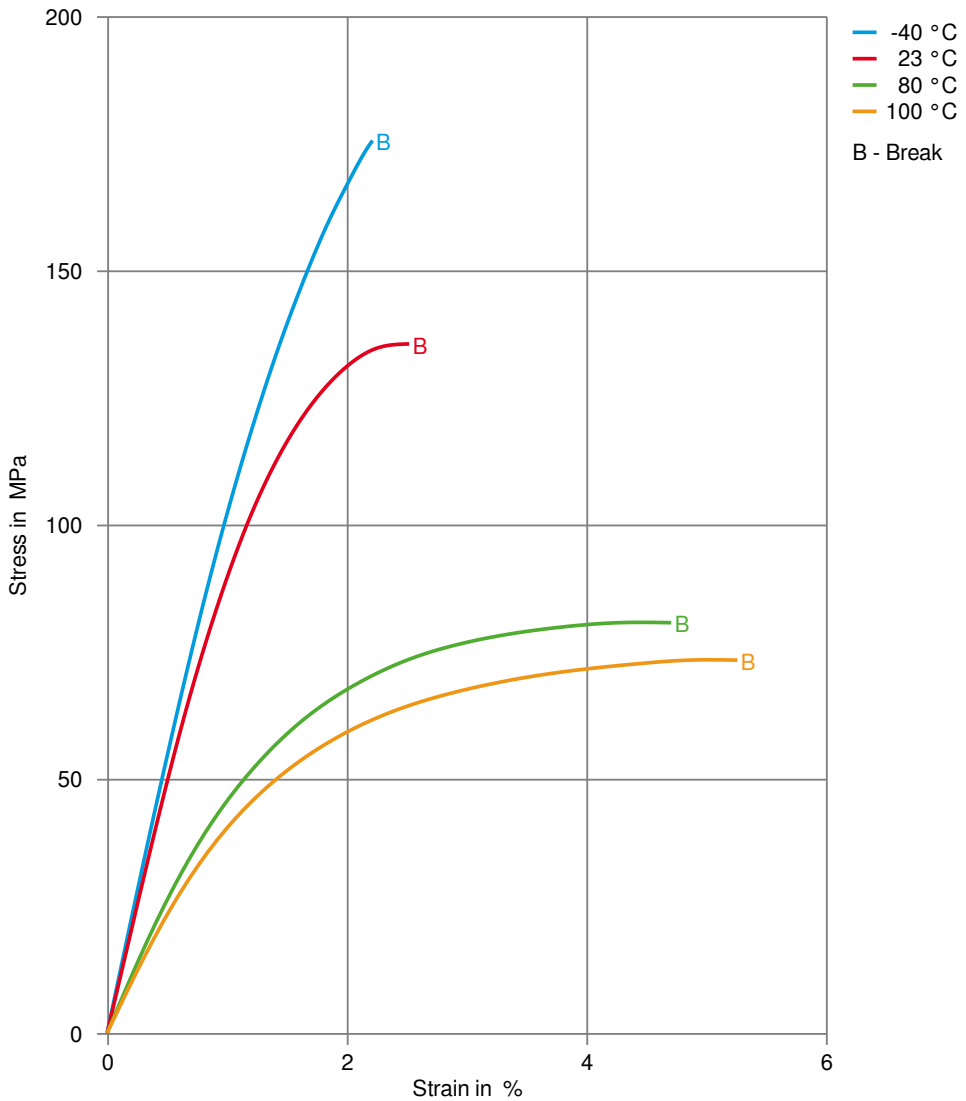
Back pressure		MPa
Injection speed	medium-fast	

Additional information

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

Stress-strain



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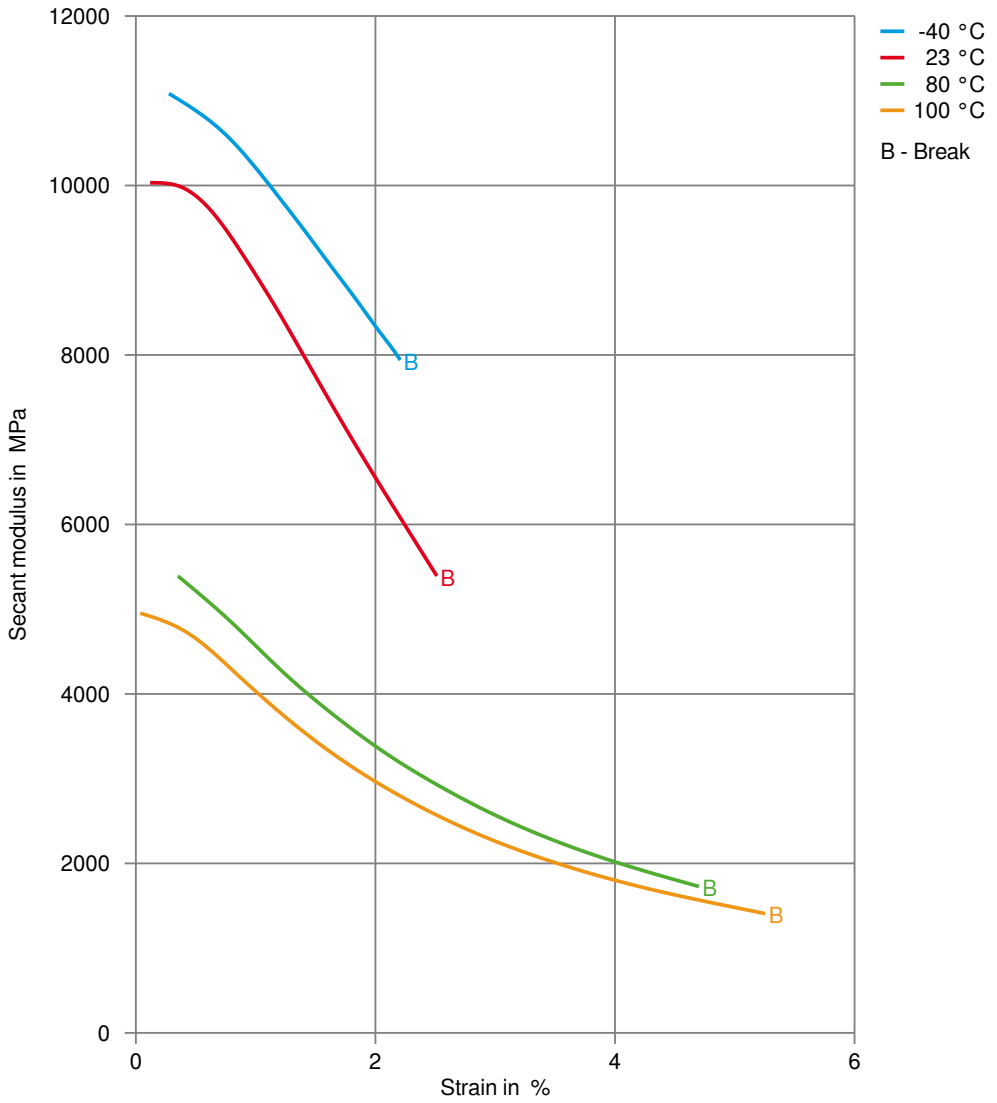
Secant modulus-strain



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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.

Injection molding

Injection speed, injection pressure and holding pressure should be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed need 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 2252	Natural
Stellantis - Chrysler	CPN 2512	Black
Stellantis - Chrysler	CPN 3144	Black
Ford	WSS-M4D929-A3	Natural & Black