

CELANEX® 1662Z - PBT

Description

Celanex 1662Z is a 30% glass reinforced polybutylene terephthalate with a good balance of mechanical properties and processability

Physical properties	Value	Unit	Test Standard
Density	1530	kg/m ³	ISO 1183
Molding shrinkage, parallel	0.3 - 0.5	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 - 1.0	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	9200	MPa	ISO 527-2/1A
Tensile stress at break, 5mm/min	130	MPa	ISO 527-2/1A
Tensile strain at break, 5mm/min	3.1	%	ISO 527-2/1A
Flexural modulus, 23°C	9700	MPa	ISO 178
Flexural strength, 23°C	210	MPa	ISO 178
Charpy notched impact strength, 23°C	11	kJ/m ²	ISO 179/1eA
Izod impact notched, 23°C	12	kJ/m ²	ISO 180/1A
Rockwell hardness (M-Scale)	90	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	205	°C	ISO 75-1, -2
DTUL at 0.45 MPa	225	°C	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0.19	E-4/°C	ISO 11359-2
Coeff. of linear therm expansion, normal	1.13	E-4/°C	ISO 11359-2
Flammability at thickness h	HB	class	UL 94
thickness tested (h)	0.80	mm	UL 94

Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Necessary low maximum residual moisture content	0.02	%	-
Drying time	4	h	-
Drying temperature	120 - 130	°C	-
Temperature	Value	Unit	Test Standard
Hopper temperature	20 - 50	°C	-
Feeding zone temperature	230 - 240	°C	-
Zone1 temperature	230 - 240	°C	-
Zone2 temperature	235 - 250	°C	-
Zone3 temperature	235 - 250	°C	-
Zone4 temperature	240 - 260	°C	-
Nozzle temperature	250 - 260	°C	-
Melt temperature	235 - 260	°C	-
Mold temperature	65 - 93	°C	-
Hot runner temperature	250 - 260	°C	-
Pressure	Value	Unit	Test Standard
Back pressure max.	3.5	bar	-
Speed	Value	Unit	Test Standard
Injection speed	medium-fast	-	-