

CELANEX® 3315-16 - PBT

Description

This is a preliminary data sheet.

Celanex 3315-16 is a flame retarded, 30% fiberglass reinforced polybutylene terephthalate which has an excellent balance of mechanical properties and processability. It is well suited for electrical connector applications

Physical properties	Value	Unit	Test Standard
Density	1630	kg/m ³	ISO 1183
Molding shrinkage, parallel	0.2 - 0.5	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 - 1.2	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0.3	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile stress at break, 5mm/min	145	MPa	ISO 527-2/1A
Tensile strain at break, 5mm/min	2.3	%	ISO 527-2/1A
Flexural modulus, 23°C	8800	MPa	ISO 178
Flexural strength, 23°C	215	MPa	ISO 178
Charpy notched impact strength, 23°C	8.5	kJ/m ²	ISO 179/1eA

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	215	°C	ISO 75-1, -2
Flammability at thickness h	V-0	class	UL 94
thickness tested (h)	1.60	mm	UL 94

Electrical properties	Value	Unit	Test Standard
Volume resistivity	>1E14	Ohm*m	IEC 60093
Surface resistivity	>1E13	Ohm	IEC 60093
Electric strength	22	kV/mm	IEC 60243-1

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	40 - 60	°C	-
Zone1 temperature	230 - 250	°C	-
Zone2 temperature	235 - 250	°C	-
Zone3 temperature	240 - 260	°C	-
Nozzle temperature	240 - 270	°C	-
Melt temperature	240 - 270	°C	-
Mold temperature	40 - 80	°C	-
Hot runner temperature	250 - 270	°C	-

Other text information

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.

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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.

Characteristics

Special Characteristics	Delivery Form
Flame retardant	Pellets
Product Categories	Additives
Glass reinforced	Lubricants, Flame retarding agent
Processing	
Injection molding	