Celanese
The chemistry inside innovation™

CELANEX® 3300-2LM

30% glass-fiber reinforced, high flow, lubricated grade, enhanced for improved laser marking
Celanex 3300-2LM is a 30% glass-filled PBT that is enhanced for improved laser marking graphics. It contains an internal lubricant for enhanced mold release. It is a lasermarkable grade available in a black color to mark white, The grade is specially formulated to yield crisp marks when subjected to a Nd:YAG laser or equivalent operated at 1064nm or 532nm. Lasers operating in the UV region (355nm) may yield different results

Product information

Part Marking Code	> PBT-GF30 <	ISO 11469

Rheological properties

Melt mass-flow rate	17	g/10min	ISO 1133
Melt mass-flow rate, Temperature	250	°C	
Melt mass-flow rate, Load	2.16	kg	
Moulding shrinkage range, parallel	0.3 - 0.5	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	9200	MPa	ISO 527-1/-2
Stress at break, 5mm/min	130	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural Modulus	9700	MPa	ISO 178
Flexural Strength	210	MPa	ISO 178
Charpy impact strength, 23°C	46	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	45	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	8.5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	8.5	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	7.5	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	209	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	25	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	100	E-6/K	ISO 11359-1/-2

Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.4	%	Sim. to ISO 62
Density	1530	kg/m³	ISO 1183

CELANEX® 3300-2LM

Injection

Max. mould temperature	65 - 93 °C

Characteristics

Additives	Release agent

Additional information

Injection molding	Rear Temperature 450-470(230-240) deg F (deg C) Center Temperature 460-480(235-250) deg F (deg C) Front Temperature 470-500(240-260) deg F (deg C) Nozzle Temperature 480-500(250-260) deg F (deg C) Melt Temperature 460-500(235-260) deg F (deg C) Mold Temperature 150-200(65-93) deg F (deg C) Back Pressure 0-50 psi Screw Speed Medium Injection Speed Fast 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, in particular for flame retardant grades. Up to 25% clean and dry regrind may be used.

Processing Texts

Injection molding	Rear Temperature 450-470(230-240) deg F (deg C) Center Temperature 460-480(235-250) deg F (deg C) Front Temperature 470-500(240-260) deg F (deg C) Nozzle Temperature 480-500(250-260) deg F (deg C) Melt Temperature 460-500(235-260) deg F (deg C) Mold Temperature 150-200(65-93) deg F (deg C) Back Pressure 0-50 psi Screw Speed Medium Injection Speed Fast 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, in particular for flame retardant grades. Up to 25% clean and dry regrind may be used.
Injection molding Preprocessing	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 <-30°F (-34°C) at 250°F (121°C) for 4 hours.