

Product Texts

Celanex 3216HR is a flame retarded, hydrolysis resistant, 15% fiberglass reinforced polybutylene terephthalate which has an excellent balance of mechanical properties and processability.

Flammability @0.8mm nom. V-0 -
 thickn.
 Flammability at thickness h (0.8 V-0 -
 mm)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.5	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.1	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	6000	MPa	ISO 527
^[C] Stress at break	80	MPa	ISO 527
^[C] Strain at break	3.1	%	ISO 527
^[C] Charpy notched impact strength, +23°C	8	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	180	°C	ISO 75-1/-2
^[C] Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	-

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.4	%	Sim. to ISO 62
^[C] Humidity absorption	0.2	%	Sim. to ISO 62
^[C] Density	1510	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant

Delivery form

Pellets

Chemical Resistance

Hydrolytically Stable

Additives

Lubricants

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding

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 min. 4 hours.

Rear Temperature 450-470 (230-240) deg F (deg C)

Center Temperature 460-480 (235-250) deg F (deg C)

Front Temperature 470-490 (240-255) deg F (deg C)
Nozzle Temperature 480-490 (250-255) deg F (deg C)
Melt Temperature 460-490 (235-255) 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.