



Celanex® 3316HR

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 3316HR is a flame retarded, hydrolysis resistant, 30% fiberglass reinforced polybutylene terephthalate which has an excellent balance of mechanical properties and processability.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Flame Retardant		
Features	• Flame Retardant	• Good Processability	• Hydrolysis Resistant
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.61	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	6.0	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.80 to 1.1	%	
Flow	0.30 to 0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.43E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	16700	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.5	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.30E+6	psi	ISO 178
Flexural Stress (73°F)	25400	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	4.0	ft·lb/in ²	ISO 179/1eA
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	396	°F	ISO 75-2/A
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.4E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	5.0E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Relative Permittivity (1 MHz)	2.90		IEC 60250
Dissipation Factor (1 MHz)	0.015		IEC 60250
Comparative Tracking Index	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.030 in)	V-0		UL 94

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 266	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	68 to 122	°F
Rear Temperature	446 to 464	°F
Middle Temperature	455 to 482	°F
Front Temperature	455 to 482	°F
Nozzle Temperature	482 to 500	°F
Processing (Melt) Temp	455 to 491	°F
Mold Temperature	149 to 205	°F
Injection Rate	Moderate-Fast	

Injection Notes

Die Temperature: 240 to 255°C
Feed Temperature: 230 to 240°C
Zone 4 Temperature: 240 to 255°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min