



Celanex® 3309HRT

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 3309HRT is a non-lubricated, 30% fiberglass reinforced Polybutylene Terephthalate that has excellent hydrolysis resistance, toughness and improved flow.

General

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

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	22	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.50 to 0.90	%	
Flow	0.10 to 0.50	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.26E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	16700	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.26E+6	psi	ISO 178
Flexural Stress (73°F)	27600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.8	ft·lb/in ²	
73°F	4.8	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	18	ft·lb/in ²	
73°F	25	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	4.8	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-22°F	15	ft·lb/in ²	
73°F	23	ft·lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 15 sec)	82		ISO 868
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	432	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	406	°F	ISO 75-2/A
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.3E-5	in/in/°F	ISO 11359-2

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Thermal	Nominal Value	Unit	Test Method
CLTE - Transverse	4.8E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.0E+17	ohms	IEC 60093
Volume Resistivity	1.0E+17	ohms·cm	IEC 60093
Electric Strength	970	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	2.80		
1 MHz	2.80		
Dissipation Factor (1 MHz)	0.011		IEC 60250
Comparative Tracking Index	450	V	IEC 60112

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 266	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Suggested Max Regrind	25	%
Hopper Temperature	68 to 122	°F
Rear Temperature	446 to 473	°F
Middle Temperature	464 to 482	°F
Front Temperature	464 to 482	°F
Nozzle Temperature	482 to 500	°F
Processing (Melt) Temp	464 to 500	°F
Mold Temperature	149 to 199	°F
Injection Rate	Moderate-Fast	
Back Pressure	0.00 to 50.0	psi

Injection Notes

Die Temperature: 250 to 260°C
Feed Temperature: 230 to 245°C
Zone 4 Temperature: 245 to 260°C

Notes

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

² 10°C/min