

Celanex® 3309HRT

Polybutylene Terephthalate

Celanese Corporation

Message:

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

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	Good liquidity		
	Hydrolysis resistance		
	Good toughness		
RoHS Compliance	Contact manufacturer		
Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.70	%	ISO 294-4
Flow direction	0.0 - 0.50	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	0.16	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	8700	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	115	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	9000	MPa	ISO 178
Flexural Stress (23°C)	190	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	10	kJ/m ²	ISO 179/1eA
23°C	10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	38	kJ/m ²	ISO 179/1eU
23°C	53	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	32	kJ/m ²	ISO 180/1U
23°C	49	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	222	°C	ISO 75-2/B

1.8 MPa, not annealed	208	°C	ISO 75-2/A
Melting Temperature ¹	225	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	2.4E-5	cm/cm/°C	ISO 11359-2
Lateral	8.6E-5	cm/cm/°C	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
Dielectric Strength	38	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	2.80		IEC 60250
1 MHz	2.80		IEC 60250
Dissipation Factor (1 MHz)	0.011		IEC 60250
Comparative Tracking Index	450	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	120 - 130	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Max Regrind	25	%	
Hopper Temperature	20.0 - 50.0	°C	
Rear Temperature	230 - 245	°C	
Middle Temperature	240 - 250	°C	
Front Temperature	240 - 250	°C	
Nozzle Temperature	250 - 260	°C	
Processing (Melt) Temp	240 - 260	°C	
Mold Temperature	65.0 - 93.0	°C	
Injection Rate	Moderate-Fast		
Back Pressure	0.00 - 0.345	MPa	
Injection instructions			
Manifold Temperature: 250 to 260°CZone 4 Temperature: 245 to 260°CFeed Temperature: 230 to 245°C			
NOTE			
1.	10°C/min		

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