



Celanex® 3425HRT

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 3425HRT is a non-lubricated, 40% fiberglass reinforced PBT copolymer that has excellent hydrolysis resistance, toughness, improved flow, and improved elongation at break.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Features	• Good Flow • Good Toughness • Hydrolysis Resistant
RoHS Compliance	• Contact Manufacturer

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	1.58	g/cm ³	ISO 1183
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow	0.60 to 0.90	%	
Flow	0.0 to 0.50	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	0.12	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.32E+6	psi	ISO 527-2/1A/1
Tensile Stress (Break)	15500	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.23E+6	psi	ISO 178
Flexural Stress (73°F)	23900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.5	ft-lb/in ²	
73°F	5.2	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	21	ft-lb/in ²	
73°F	25	ft-lb/in ²	
Notched Izod Impact Strength (73°F)	5.2	ft-lb/in ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	396	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	347	°F	ISO 75-2/A
Glass Transition Temperature ²	68.0	°F	ISO 11357-2
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.1E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.4E-5	in/in/°F	ISO 11359-2

Celanex® 3425HRT

Celanese Corporation - Polybutylene Terephthalate

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	3.0E+17	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength	790	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.21		
1 MHz	4.13		
Dissipation Factor (1 MHz)	0.020		IEC 60250
Comparative Tracking Index	375	V	IEC 60112

Processing Information

Injection	Nominal Value	Unit
Suggested Max Regrind	25	%
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 500	°F
Mold Temperature	149 to 199	°F
Injection Rate	Fast	
Back Pressure	0.00 to 50.0	psi

Injection Notes

Manifold Temperature: 250 to 260°C
Zone 4 Temperature: 240 to 260°C
Feed Temperature: 230 to 240°C

Notes

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

² 10°C/min