



Celanex® 4300

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 4300 is a toughened, 30% glass reinforced PBT.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
RoHS Compliance	• Contact Manufacturer
Automotive Specifications	• ASTM D5927 TPES011 G30 Color: Gray • CHRYSLER MS-DB-400 CPN3199 Color: Color as Noted on Drawing • CHRYSLER MS-DB-469 CPN3852 Color: Color As Noted On Drawing • DELPHI M-4662 Color: Gray • FORD ESB-M4D354-A2

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.53	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	8.0	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.80	%	
Flow	0.30 to 0.50	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	0.14	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.35E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	18900	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.1	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.31E+6	psi	ISO 178
Flexural Stress (73°F)	29700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.0	ft-lb/in ²	
73°F	5.2	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	24	ft-lb/in ²	
73°F	19	ft-lb/in ²	
Notched Izod Impact Strength (73°F)	5.8	ft-lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	91		ISO 2039-2
Shore Hardness (Shore D, 15 sec)	83		ISO 868
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	428	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	392	°F	ISO 75-2/A
Glass Transition Temperature ²	106	°F	ISO 11357-2

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Thermal	Nominal Value	Unit	Test Method
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.3E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	4.4E-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
Electric Strength	510	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	2.80		
1 MHz	3.90		
Dissipation Factor (1 MHz)	0.022		IEC 60250
Comparative Tracking Index	400	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.028 in)	HB		UL 94

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 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	Moderate-Fast	
Back Pressure	0.00 to 50.0	psi

Injection Notes

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

Notes

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

² 10°C/min