



Celanex® 4306

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 4306 is a 30% glass reinforced, toughened, low warpage thermoplastic polyester.

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	• Low Warpage		
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• DELPHI DX300271	• GM GMP.PBT.009 Color: Black	• GM GMP.PBT.009 Color: Natural

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm ³	ISO 1183
Molding Shrinkage - Flow	0.40 to 0.60	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.33E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	17400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.9	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.23E+6	psi	ISO 178
Flexural Stress (73°F)	26100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	5.2	ft-lb/in ²	
73°F	5.7	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	21	ft-lb/in ²	
73°F	29	ft-lb/in ²	
Notched Izod Impact Strength (73°F)	5.7	ft-lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	73		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	410	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	327	°F	ISO 75-2/A
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.1E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	4.8E-5	in/in/°F	ISO 11359-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 266	°F
Drying Time	4.0	hr

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Injection	Nominal Value	Unit
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