



Celanex® 4302

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 4302 is a 30% glass reinforced PBT designed for improved mold flow, warp resistance and surface appearance.

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	• Pleasing Surface Appearance	• Warp Resistant
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• FORD WSF-M4D737-A		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.49	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	0.40 to 0.60	%	
Flow	0.20 to 0.40	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.29E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	17400	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	3.9	ft·lb/in ²	
73°F	4.7	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	20	ft·lb/in ²	
73°F	27	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	6.6	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 15 sec)	81		ISO 868
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	424	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	343	°F	ISO 75-2/A
Glass Transition Temperature ²	131	°F	ISO 11357-2
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.0E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.9E-5	in/in/°F	ISO 11359-2

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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