



Celanex® 1632Z

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 1632Z is a general purpose, 15% fiberglass reinforced polybutylene terephthalate with a good balance of mechanical properties and processability.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight		
Features	• General Purpose	• Good Processability	
Uses	• General Purpose		
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• FORD WSK-M4D750-A		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	9.0	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.30 to 0.50	%	ISO 294-4
Water Absorption (Equilibrium, 73°F, 50% RH)	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	754000	psi	ISO 527-2/1A
Tensile Stress (Break)	13800	psi	ISO 527-2/1A/5
Tensile Strain (Break)	5.4	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	783000	psi	ISO 178
Flexural Stress (73°F)	22500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.6	ft-lb/in ²	ISO 179/1eA
Notched Izod Impact Strength (73°F)	2.5	ft-lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	90		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	423	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	372	°F	ISO 75-2/A
Glass Transition Temperature ²	140	°F	ISO 11357-2
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	2.2E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.1E-5	in/in/°F	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.031 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 266	°F

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Injection	Nominal Value	Unit
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	< 50.8	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