Celanex® 2004-2T

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 2004-2T is an unfilled impact modified polyester that has an excellent combination of flowability and toughness. A typical application for Celanex 2004-2T is electrical connectors containing latches and / or film hinges. Celanex 2004-2T contains an internal lubricant.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Impact Modifier	• Lubricant	
Features	• Good Flow • Good Toughness	• Impact Modified • Lubricated	
Uses	• Connectors		
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	21	cm³/10min	ISO 1133
Molding Shrinkage - Flow	1.8 to 2.0	%	ISO 294-4
Water Absorption (Saturation, 73°F)	0.45	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	305000	psi	ISO 527-2/1A
Tensile Stress (Yield)	7690	psi	ISO 527-2/1A/50
Tensile Stress (Break)	4350	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	10	%	ISO 527-2/1A/50
Tensile Strain (Break)	> 50	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	20	%	ISO 527-2/1A/50
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	2.9	ft·lb/in²	ISO 179/1eA
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (66 psi, Unannealed)	329	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	131	°F	ISO 75-2/A
Glass Transition Temperature [2]	140	°F	ISO 11357-2
Melting Temperature [2]	437	°F	ISO 11357-3
CLTE - Flow	6.1E-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
Relative Permittivity			IEC 60250
100 Hz	3.50		
1 MHz	3.50		
Dissipation Factor			IEC 60250
100 Hz	3.0E-3		
1 MHz	0.021		

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Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.04 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