



Vandar® 8000

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Vandar 8000 polyester alloy is designed to meet UL94 V-0 requirements at 1/32 inch thickness while retaining excellent impact resistance. The product is characterized by excellent moldability and surface finish. Vandar 8000 is well suited for electrical and electronic applications.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Impact Resistance	• Good Moldability	• Good Surface Finish
Uses	• Electrical/Electronic Applications		
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.37	g/cm ³	ISO 1183
Molding Shrinkage - Flow	2.5 to 2.8	%	ISO 294-4
Water Absorption (Saturation, 73°F)	0.45	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	247000	psi	ISO 527-2/1A
Tensile Stress (Yield)	4350	psi	ISO 527-2/1A/50
Tensile Stress (50% Strain)	4640	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.5	%	ISO 527-2/1A/50
Tensile Strain (Break)	50	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 50	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	239000	psi	ISO 178
Flexural Stress (73°F)	7250	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	7.1	ft-lb/in ²	
73°F	36	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	No Break		
73°F	No Break		
Notched Izod Impact Strength (73°F)	No Break		ISO 180/1A

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	105		ISO 2039-2

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	261	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	126	°F	ISO 75-2/A
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	4.9E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.1E-5	in/in/°F	ISO 11359-2

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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	610	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.00		
1 MHz	3.60		
Dissipation Factor			IEC 60250
100 Hz	4.5E-3		
1 MHz	0.017		
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.03 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 266	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
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	464 to 491	°F
Processing (Melt) Temp	455 to 491	°F
Mold Temperature	149 to 205	°F
Injection Rate	Moderate-Fast	

Injection Notes

Feeding zone temperature: 230 to 240°C
Zone4 temperature: 240 to 255°C
Hot runner temperature: 250 to 260°C

Notes

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

² 10°C/min