

Vandar® 8000

Polybutylene Terephthalate

Celanese Corporation

Message:

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 Information	
UL YellowCard	E45575-239417
Features	Impact resistance, good
	Good formability
	Good electrical performance
	Excellent appearance
RoHS Compliance	Contact manufacturer
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)
	Shear Modulus vs. Temperature (ISO 11403-1)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.37	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			
Flow	2.5 - 2.8	%	ASTM D955
Flow direction	2.5 - 2.8	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	0.20	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	105		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1700	MPa	ISO 527-2/1A/1
Tensile Strength			
Yield, 23°C	34.5	MPa	ASTM D638
Yield	30.0	MPa	ISO 527-2/1A/50
Fracture, 23°C	34.5	MPa	ASTM D638
50% strain	32.0	MPa	ISO 527-2/1A/50
Tensile Strain			
Yield	4.5	%	ISO 527-2/1A/50
Fracture, 23°C	50	%	ASTM D638
Fracture	50	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	> 50	%	ISO 527-2/1A/50
Flexural Modulus (23°C)	1650	MPa	ISO 178
Flexural Stress (23°C)	50.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	15	kJ/m ²	ISO 179/1eA
23°C	75	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact (23°C)	No Break		ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	127	°C	ISO 75-2/B
0.45 MPa, annealed	116	°C	ASTM D648
1.8 MPa, not annealed	54.4	°C	ASTM D648
1.8 MPa, not annealed	52.0	°C	ISO 75-2/A
Melting Temperature ¹	225	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	8.9E-5	cm/cm/°C	ISO 11359-2
Lateral	1.1E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Dielectric Strength	24	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.00		IEC 60250
1 MHz	3.60		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	4.5E-3		IEC 60250
1 MHz	0.017		IEC 60250
Arc Resistance	81.0	sec	ASTM D495
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.850 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	120 - 130	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	20.0 - 50.0	°C	
Rear Temperature	230 - 240	°C	
Middle Temperature	235 - 250	°C	
Front Temperature	235 - 250	°C	
Nozzle Temperature	240 - 255	°C	
Processing (Melt) Temp	235 - 255	°C	

Mold Temperature	65.0 - 96.0	°C
Injection Rate	Moderate-Fast	
Back Pressure	0.00 - 0.345	MPa
Injection instructions		
Manifold Temperature: 250 to 260°CZone 4 Temperature: 240 to 255°CFeed Temperature: 230 to 240°C		
NOTE		
1.	10°C/min	

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