



Vandar® 2100UV

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Vandar 2100UV is a polyester alloy designed to offer maximum impact strength at room and low temperatures. This unfilled compound is characterized by outstanding chemical resistance, dimensional stability, paintability, and toughness. Vandar 2100UV is available in UV stable colors.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Dimensional Stability • Good Toughness	• High Impact Resistance • Low Temperature Impact Resistance • Paintable	• UV Resistant
RoHS Compliance	• Contact Manufacturer		
Appearance	• Colors Available		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.22	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	5.50	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.7 to 2.2	%	
Flow	1.7 to 2.2	%	
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	256000	psi	ISO 527-2/1A
Tensile Stress (Yield)	5510	psi	ISO 527-2/1A/50
Tensile Stress (Break)	4210	psi	ISO 527-2/1A/50
Tensile Stress (50% Strain)	3770	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.4	%	ISO 527-2/1A/50
Tensile Strain (Break)	250	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	170	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	242000	psi	ISO 178
Flexural Stress (73°F)	6820	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	9.0	ft-lb/in ²	
73°F	38	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)	38		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	187	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	124	°F	ISO 75-2/A
Glass Transition Temperature ²	140	°F	ISO 11357-2
Vicat Softening Temperature	262	°F	ISO 306/B50
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	7.2E-5	in/in/°F	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
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	7.0E-3		
1 MHz	0.020		
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 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	%
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 500	°F
Processing (Melt) Temp	455 to 500	°F
Mold Temperature	149 to 205	°F
Injection Rate	Moderate-Fast	

Injection Notes

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

Notes

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

² 10°C/min