

Panlite® L-1225Z100

TEIJIN LIMITED - Polycarbonate

General Information

Product Description

Weather Resistant grade

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Mold Release	• Low Viscosity	• Weather Resistant
Uses	• Automotive Applications	• General Purpose	• LEDs
Automotive Specifications	• GM GMP.PC.009		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	12	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 4.00 mm	0.50 to 0.70	%	
Flow : 4.00 mm	0.50 to 0.70	%	
Water Absorption (24 hr, 23°C)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2/1
Tensile Stress (Yield)	61.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	6.0	%	ISO 527-2/50
Nominal Tensile Strain at Break	> 50	%	ISO 527-2/50
Flexural Modulus ²	2400	MPa	ISO 178
Flexural Stress ²	94.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	71	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	No Break		ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	141	°C	ISO 75-2/B
Heat Deflection Temperature (1.8 MPa, Unannealed)	128	°C	ISO 75-2/A
Vicat Softening Temperature	148	°C	ISO 306/B50
CLTE - Flow	7.0E-5	cm/cm/°C	ISO 11359-2
CLTE - Transverse	7.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec (0.75 mm)	125	°C	UL 746
RTI Imp (0.75 mm)	115	°C	UL 746
RTI Str (0.75 mm)	125	°C	UL 746

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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength ³	30	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	3.10		
1 MHz	3.00		
Dissipation Factor			IEC 60250
100 Hz	1.0E-3		
1 MHz	9.0E-3		
Comparative Tracking Index	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.9 mm	HB		
0.40 mm	V-2		
Glow Wire Flammability Index			IEC 60695-2-12
1.5 mm	825	°C	
3.2 mm	875	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
1.5 mm	850	°C	
3.2 mm	875	°C	
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.585		ASTM D542
Transmittance (3000 μm)	88.0	%	ASTM D1003

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 2.0 mm/min
- ³ short time test