Panlite® L-1225Z 100

PC — Teijin Chemicals Ltd.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**19**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Mold Shrinkage, MD	**0.006**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.006**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2400**	MPa	ISO 527
Yield stress	**61**	MPa	ISO 527
Yield strain	**6**	%	ISO 527
Nominal strain at break	**>50**	%	ISO 527
Flexural modulus, 23°C	**2400**	MPa	ISO 178
Flexural strength	**94**	MPa	ISO 178
Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**71**	kJ/m²	ISO 179/1eA
ASTM Data			
Tensile Modulus	**2130**	MPa	ASTM D 638
Tensile Strength at Yield	**63**	MPa	ASTM D 638
Tensile Strength at Break	**77**	MPa	ASTM D 638
Elongation at Yield	**6**	%	ASTM D 638
Elongation at Break	**140**	%	ASTM D 638
Compressive Strength	**76**	MPa	ASTM D 695
Flexural Modulus	**2260**	MPa	ASTM D 790
Flexural Strength	**93**	MPa	ASTM D 790
Rockwell Hardness	**M 77**	-	ASTM D 785
Izod Impact notched, 1/8 in	**830**	J/m	ASTM D 256
Izod Impact notched, 1/4 in	**130**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**128**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**141**	°C	ISO 75-1/-2
Vicat softening temperature, B	**148**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**70**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**70**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.4**	mm	-
Glow Wire Flammability Index (GWFI)	**825**	°C	IEC 60695-2-12
GWFI - thickness tested (1)	**1.5**	mm	-
Glow Wire Flammability Index (GWFI)	**875**	°C	IEC 60695-2-12
GWFI - thickness tested (2)	**3.2**	mm	-
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1.5**	mm	-
Glow Wire Ignition Temperature (GWIT)	**875**	°C	IEC 60695-2-13
GWIT - thickness tested (2)	**3.2**	mm	-
ASTM Data			
UL 94 Flame rating	**HB**	-	UL 94
Thickness tested	**1.9**	mm	-
Coefficient of Thermal Expansion, MD	**70**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**70**	E-6/K	ASTM D 696

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	**3.1**	-	IEC 62631-2-1

Relative permittivity, 1MHz	**3**	-	IEC 62631-2-1
Dissipation factor, 100Hz	**10**	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	**90**	E-4	IEC 62631-2-1
Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
Surface resistivity	**>1E15**	Ohm	IEC 62631-3-2
Electric strength	**30**	kV/mm	IEC 60243-1
Comparative tracking index	**250**	-	IEC 60112
ASTM Data			
Dielectric Strength, Short Time	**30**	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	**0.0004**	-	ASTM D 150
Dissipation Factor, 1 MHz	**0.009**	-	ASTM D 150
Dielectric Constant, 60 Hz	**2.95**	-	ASTM D 150
Dielectric Constant, 1 MHz	**2.9**	-	ASTM D 150
Volume Resistivity	**3E16**	Ohm*cm	ASTM D 257
Arc Resistance	**100**	s	ASTM D 495

Optical properties	**Value**	**Unit**	**Test Standard**
ASTM Data			
Light Transmittance	**88**	%	ASTM D 1003
Index of Refraction	**1.58**	-	ASTM D 542

Other properties	**Value**	**Unit**	**Test Standard**
Density	**1200**	kg/m³	ISO 1183
Water Absorption, Equilibrium	**0.2**	%	ASTM D 570

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**>5**	h	-
Melt temperature	**270 - 320**	°C	-
Mold temperature	**80 - 120**	°C	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Additives
Release agent

Special Characteristics
U.V. stabilized or stable to weather, Transparent

Applications
Automotive, Electrical and Electronical, General Purpose

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa