

Panlite® L-1250Z 100

Polycarbonate

Teijin Kasei America, Inc. (Teijin Chemicals)



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Technical Data

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
UL Yellow Card ²	• E195100-101422443 • E245526-101512723 • E244324-101516427
Search for UL Yellow Card	• Teijin Kasei America, Inc. (Teijin Chemicals) • Panlite®
Availability	• Asia Pacific • Europe • North America
Features	• Good UV Resistance • Medium Viscosity
Uses	• General Purpose • Transparent or Translucent Parts
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity			
--	1.20	1.20 g/cm ³	ASTM D792
--	1.20 g/cm ³	1.20 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	0.488 in ³ /10min	8.00 cm ³ /10min	ISO 1133
Molding Shrinkage			
Flow	0.0050 to 0.0070 in/in	0.50 to 0.70 %	ASTM D955
Across Flow	0.0050 to 0.0070 in/in	0.50 to 0.70 %	ASTM D955
Across Flow	0.50 to 0.70 %	0.50 to 0.70 %	ISO 294-4
Flow	0.50 to 0.70 %	0.50 to 0.70 %	ISO 294-4
Water Absorption (73°F (23°C), 24 hr)	0.20 %	0.20 %	ASTM D570 ISO 62
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
--	307000 psi	2120 MPa	ASTM D638
--	348000 psi	2400 MPa	ISO 527-2/1
Tensile Strength			
Yield	8990 psi	62.0 MPa	ASTM D638
Yield	8850 psi	61.0 MPa	ISO 527-2/50
Break	11600 psi	80.0 MPa	ASTM D638
Tensile Elongation			
Yield	6.0 %	6.0 %	ASTM D638 ISO 527-2/50
Break	140 %	140 %	ASTM D638
Nominal Tensile Strain at Break	50 %	50 %	ISO 527-2/50
Flexural Modulus			
--	323000 psi	2230 MPa	ASTM D790
-- ⁴	341000 psi	2350 MPa	ISO 178
Flexural Strength			
-- ⁴	13500 psi	93.0 MPa	ISO 178
Yield	13300 psi	92.0 MPa	ASTM D790
Compressive Strength	11000 psi	76.0 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength	36 ft·lb/in ²	76 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	No Break	No Break	ISO 179

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Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
0.126 in (3.20 mm)	16 ft·lb/in	880 J/m	
0.252 in (6.40 mm)	2.6 ft·lb/in	140 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	77	77	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	288 °F	142 °C	ASTM D648 ISO 75-2/B
264 psi (1.8 MPa), Unannealed	270 °F	132 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	264 °F	129 °C	ISO 75-2/A
Vicat Softening Temperature	300 °F	149 °C	ISO 306/B50
CLTE			ASTM D696 ISO 11359-2
Flow	0.000039 in/in/°F	0.000070 cm/cm/°C	
Transverse	0.000039 in/in/°F	0.000070 cm/cm/°C	
RTI Elec (0.0579 in (1.47 mm))	257 °F	125 °C	UL 746
RTI Imp (0.0579 in (1.47 mm))	239 °F	115 °C	UL 746
RTI Str (0.0579 in (1.47 mm))	257 °F	125 °C	UL 746
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	1.0E+15 ohm	1.0E+15 ohm	IEC 60093
Volume Resistivity			
--	3.0E+18 ohm·cm	3.0E+18 ohm·cm	ASTM D257
--	1.0E+15 ohm·cm	1.0E+15 ohm·cm	IEC 60093
Dielectric Strength			
0.0630 in (1.60 mm) ⁵	760 V/mil	30 kV/mm	ASTM D149
--	760 V/mil	30 kV/mm	IEC 60243-1
Dielectric Constant			
60 Hz	2.95	2.95	ASTM D150
1 MHz	2.90	2.90	ASTM D150
100 Hz	3.10	3.10	IEC 60250
1 MHz	3.00	3.00	IEC 60250
Dissipation Factor			
60 Hz	0.00040	0.00040	ASTM D150
1 MHz	0.0090	0.0090	ASTM D150 IEC 60250
100 Hz	0.0010	0.0010	IEC 60250
Arc Resistance	110 sec	110 sec	ASTM D495
Comparative Tracking Index (CTI)	300 V	300 V	UL 746
Comparative Tracking Index	250 V	250 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.0591 in (1.50 mm)	HB	HB	
0.0157 in (0.400 mm)	V-2	V-2	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Refractive Index	1.585	1.585	ASTM D542
Transmittance (118 mil (3000 µm))	88.0 %	88.0 %	ASTM D1003

Additional Information

Electric Strength, IEC 60243-1, Short Time Test: 30 MV/m

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Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 0.079 in/min (2.0 mm/min)

⁵ Method C (Slow Rate-of-Rise)

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Where to Buy

Supplier

Teijin Kasei America, Inc. (Teijin Chemicals)

Alpharetta, GA USA

Telephone: 770-346-8949

Web: <http://www.tejinkasei.com>

Distributor

Calsak Polymers

Telephone: 800-743-2595

Web: <http://www.calsakpolymers.com/>

Availability: North America

Resin Resource, Inc.

Telephone: 877-652-3431

Web: <http://www.resinresourceinc.com/>

Availability: North America

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.

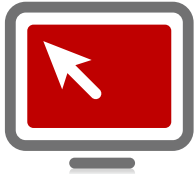
Telephone: +32-11-57-95-57

Web: <http://www.ultrapolymers.com/>

Availability: Bosnia and Herzegovina, Bulgaria, Croatia, France, Hungary, Ireland, Macedonia, Romania, Serbia, Slovakia, Slovenia, United Kingdom



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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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