

Teijin Kasei America, Inc.



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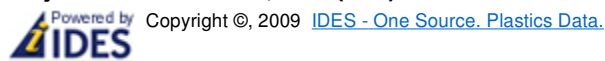
Panlite® L-1250YTeijin Kasei America, Inc. (Teijin Chemicals) - *Polycarbonate*Unit System: ▼**Actions****Legend** ([Open](#))**General Information****General**

Material Status	● Commercial: Active
Availability	● Asia Pacific ● Europe ● North America
Additive	● Mold Release
Features	● Good Mold Release ● Medium Viscosity
Uses	● Compounding ● Industrial Parts ● Transparent or Translucent Parts ● General Purpose ● Safety Helmets
Appearance	● Clear/Transparent
Forms	● Pellets
Processing Method	● Compounding ● Injection Molding

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20		ASTM D792
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300 °C/1.2 kg)	0.488	in ³ /10min	ISO 1133
Molding Shrinkage - Flow	0.0050 to 0.0070	in/in	ASTM D955
Molding Shrinkage - Across Flow	0.0050 to 0.0070	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow	0.50 to 0.70	%	
Flow	0.50 to 0.70	%	
Water Absorption (73 °F, 24 hr)	0.20	%	ASTM D570
Water Absorption (73 °F, 24 hr)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	307000	psi	ASTM D638
Tensile Modulus	348000	psi	ISO 527-2/1
Tensile Strength (Yield)	8850	psi	ASTM D638
Tensile Stress (Yield)	8850	psi	ISO 527-2/50
Tensile Strength (Break)	11700	psi	ASTM D638
Tensile Elongation (Yield)	6.0	%	ASTM D638
Tensile Strain (Yield)	6.0	%	ISO 527-2/50
Tensile Elongation (Break)	140	%	ASTM D638
Nominal Tensile Strain at Break	50	%	ISO 527-2/50
Flexural Modulus	323000	psi	ASTM D790
Flexural Modulus ²	334000	psi	ISO 178
Flexural Strength ²	13200	psi	ISO 178
Flexural Strength (Yield)	13100	psi	ASTM D790
Compressive Strength	11000	psi	ASTM D695
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	36.2	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength	No Break		ISO 179
Notched Izod Impact			ASTM D256
0.126 in	16.5	ft·lb/in	
0.252 in	2.62	ft·lb/in	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	77		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	289	°F	ASTM D648
Heat Deflection Temperature (66 psi, Unannealed)	288	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	271	°F	ASTM D648
Heat Deflection Temperature (264 psi, Unannealed)	264	°F	ISO 75-2/A
Vicat Softening Temperature	300	°F	ISO 306/B50
CLTE - Flow	0.000039	in/in/°F	ASTM D696
CLTE - Flow	0.000039	in/in/°F	ISO 11359-2
CLTE - Transverse	0.000039	in/in/°F	ASTM D696

CLTE - Transverse	0.000039	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	3.0E+18	ohm·cm	ASTM D257
Volume Resistivity	1.0E+15	ohm·cm	IEC 60093
Dielectric Strength ³ (0.0630 in)	760	V/mil	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	2.95		
1E+6 Hz	2.90		
Relative Permittivity			IEC 60250
100 Hz	3.10		
1E+6 Hz	3.00		
Dissipation Factor			ASTM D150
60 Hz	0.00040		
1E+6 Hz	0.0090		
Dissipation Factor			IEC 60250
100 Hz	0.0010		
1E+6 Hz	0.0090		
Arc Resistance	110	sec	ASTM D495
Comparative Tracking Index	250	V	IEC 60112
Electric Strength	760	V/mil	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
0.0591 in		HB	
0.0157 in		V-2	
UL 746	Nominal Value	Unit	Test Method
RTI Str (0.0579 in)	257	°F	UL 746
RTI Imp (0.0579 in)	239	°F	UL 746
RTI Elec (0.0579 in)	257	°F	UL 746
Comparative Tracking Index (CTI)	300	V	UL 746
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.585		ASTM D542
Transmittance (118 mil)	88.0	%	ASTM D1003
Additional Information			
Electric Strength, IEC 60243-1, Short Time Test: 30 MV/m			
Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	212 to 248	°F	
Drying Time	5.0	hr	
Suggested Max Moisture	0.020	%	
Processing (Melt) Temp	500 to 608	°F	
Mold Temperature	176 to 248	°F	
Injection Pressure	14200 to 21300	psi	
Notes			
¹ Typical properties: these are not to be construed as specifications.			
² 0.079 in/min			
³ Method C (Slow Rate-of-Rise)			

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