

## Panlite® LN-2250Y TEIJIN LIMITED - Polycarbonate

Saturday, February 13, 2016

General Information						
Product Description						
Flame resistant grade						
General						
Material Status	Commercial: Active					
Availability	<ul><li>Africa &amp; Middle East</li><li>Asia Pacific</li></ul>	<ul><li>Europe</li><li>Latin America</li></ul>	North America			
Features	<ul> <li>Flame Retardant</li> </ul>	Good Mold Release	<ul> <li>Low Viscosity</li> </ul>			
Uses	<ul> <li>Electrical Parts</li> </ul>	General Purpose				
Appearance	<ul> <li>Clear/Transparent</li> </ul>					
Forms	<ul> <li>Pellets</li> </ul>					
Processing Method	Injection Molding					

7.01.11.0	ISO Properties <sup>1</sup>		
Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	11.0	cm³/10min	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 (23°C, 24 hr)	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 <sup>2</sup>	2350	MPa	ISO 178
Flexural Stress <sup>2</sup>	92.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	76	kJ/m²	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 (3.00 mm)	125	°C	UL 746
RTI Imp (3.00 mm)	115	°C	UL 746
RTI Str (3.00 mm)	125	°C	UL 746

- The numerical values described in the data sheet are typical numerical values produced with a standard test method, and they do not guarantee the product's performance in a particular application.
- The flammability as described in the data sheet is an evaluation that resulted from a small-scale test, and it cannot be applied as it is to evaluate the actual risk of fire.
- Please contact us if you wish to use the product in medical equipment, food containers and packaging, and toys. If you wish to use various additives (antibacterial agents, stabilizers and flame retardants) or coloring agents with this resin, please consult with Teijin Ltd. beforehand. However, please note that Teijin Ltd. does not offer any kind of guarantee or bear any responsibility with regards to using this resin in any of these applications.
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  The raw materials used in our products may be subject to regulations depending on the type of system that exists to manage chemical substances in places to which our products are delivered. In addition, a separate application may need to be filled depending on the brand. There are also cases where imports of our products are not approved. If you are an importer or exporter and intend to import or export our products to new destinations, please make sure you contact us for details of regulatory compliance in those destinations.

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### **TEIJIN LIMITED - Polycarbonate**

Flame Rating  0.430 mm  V-2  3.00 mm  V-0  Glow Wire Flammability Index  1.00 mm  900 °C  3.00 mm  900 °C  Glow Wire Ignition Temperature  1.00 mm  850 °C  3.00 mm  850 °C	Electrical	Nominal Value	Unit	Test Method
Electric Strength 3   32 kV/mm   EC 60243-1     Relative Permittivity   EC 60250     100 Hz	Surface Resistivity	> 1.0E+15	ohms	IEC 60093
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       225 V       IEC 60112         Stammability       Nominal Value       Ul. 94         Flame Rating       UL. 94         0.430 mm       V-2         3.00 mm       V-0         Glow Wire Flammability Index       IEC 60695-2-12         1.00 mm       900 °C         3.00 mm       960 °C         Glow Wire Ignition Temperature       IEC 60695-2-13         1.00 mm       850 °C         3.00 mm       850 °C         Optical       Nominal Value       Unit       Test Method         ASTM D542	Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
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       225       V       IEC 60112         Stammability       Nominal Value       UL 94         6 Jammability       V-2       UL 94         9 0.430 mm       V-2       UL 94         9 0.430 mm       V-2       UL 94         1.00 mm       900       °C         3.00 mm       960       °C         3 00 mm       850       °C         Glow Wire Ignition Temperature       850       °C         1.00 mm       850       °C         3 00 mm       Nominal Value       Unit       Test Method         Optical       Nominal Value       Unit       Test Method         ASTM D542	Electric Strength <sup>3</sup>	32	kV/mm	IEC 60243-1
1 MHz       3.00         Dissipation Factor       IEC 60250         100 Hz       1.0E-3       1.0E-3         1 MHz       9.0E-3       1.0E-60112         Comparative Tracking Index       225 V       IEC 60112         Flammability       Nominal Value Unit       Test Method         Flammability       V-2       3.00 mm       V-2       4.00 mm       4.00 mm       1.00 mm       900 °C       2.00 mm       1.00 mm       900 °C       3.00 mm       900 °C       3.00 mm       900 °C       3.00 mm       850 °C       3.00 mm       850 °C       900	Relative Permittivity			IEC 60250
Dissipation Factor	100 Hz	3.10		
100 Hz       1.0E-3         1 MHz       9.0E-3         Comparative Tracking Index       225       V       IEC 60112         Flammability       Nominal Value       Unit       Test Method         Flame Rating       UL 94         0.430 mm       V-2       3.00 mm       V-0         Glow Wire Flammability Index       IEC 60695-2-12         1.00 mm       900       °C         3.00 mm       960       °C         Glow Wire Ignition Temperature       IEC 60695-2-13         1.00 mm       850       °C         3.00 mm       850       °C         Optical       Nominal Value       Unit       Test Method         Refractive Index       1.585       ASTM D542	1 MHz	3.00		
1 MHz         9.0E-3           Comparative Tracking Index         225         V         IEC 60112           Islammability         Nominal Value         Unit         Test Method           Flame Rating         UL 94           0.430 mm         V-2         3.00 mm           Glow Wire Flammability Index         IEC 60695-2-12           1.00 mm         900         °C           3.00 mm         960         °C           Glow Wire Ignition Temperature         IEC 60695-2-13           1.00 mm         850         °C           3.00 mm         850         °C           Optical         Nominal Value         Unit         Test Method           Refractive Index         1.585         ASTM D542	Dissipation Factor			IEC 60250
Comparative Tracking Index         225         V         IEC 60112           Itammability         Nominal Value         Unit         Test Method           Flame Rating         UL 94           0.430 mm         V-2         V-2           3.00 mm         V-0         IEC 60695-2-12           1.00 mm         900         °C           3.00 mm         960         °C           Glow Wire Ignition Temperature         IEC 60695-2-13           1.00 mm         850         °C           3.00 mm         850         °C           Optical         Nominal Value         Unit         Test Method           Refractive Index         1.585         ASTM D542	100 Hz	1.0E-3		
Flammability         Nominal Value         Unit         Test Method           Flame Rating         UL 94           0.430 mm         V-2         V-2           3.00 mm         V-0         IEC 60695-2-12           1.00 mm         900         °C           3.00 mm         960         °C           Glow Wire Ignition Temperature         IEC 60695-2-13           1.00 mm         850         °C           3.00 mm         850         °C           Optical         Nominal Value         Unit         Test Method           Refractive Index         1.585         ASTM D542	1 MHz	9.0E-3		
Flame Rating       UL 94         0.430 mm       V-2         3.00 mm       V-0         Glow Wire Flammability Index       IEC 60695-2-12         1.00 mm       900 °C         3.00 mm       960 °C         Glow Wire Ignition Temperature       IEC 60695-2-13         1.00 mm       850 °C         3.00 mm       850 °C         Optical       Nominal Value       Unit       Test Method         Refractive Index       1.585       ASTM D542	Comparative Tracking Index	225	V	IEC 60112
0.430 mm       V-2         3.00 mm       V-0         Glow Wire Flammability Index       IEC 60695-2-12         1.00 mm       900 °C         3.00 mm       960 °C         IEC 60695-2-13         1.00 mm       850 °C         3.00 mm       850 °C         Optical       Nominal Value       Unit       Test Method         Refractive Index       1.585       ASTM D542	Flammability	Nominal Value	Unit	Test Method
3.00 mm   V-0	Flame Rating			UL 94
Section   Sect	0.430 mm	V-2		
1.00 mm       900 °C         3.00 mm       960 °C         Glow Wire Ignition Temperature       IEC 60695-2-13         1.00 mm       850 °C         3.00 mm       850 °C         Optical       Nominal Value       Unit       Test Method         Refractive Index       1.585       ASTM D542	3.00 mm	V-0		
3.00 mm       960 °C         Glow Wire Ignition Temperature       IEC 60695-2-13         1.00 mm       850 °C         3.00 mm       850 °C         Optical       Nominal Value       Unit       Test Method         Refractive Index       1.585       ASTM D542	Glow Wire Flammability Index			IEC 60695-2-12
Glow Wire Ignition Temperature         IEC 60695-2-13           1.00 mm         850 °C           3.00 mm         850 °C           Optical         Nominal Value         Unit         Test Method           Refractive Index         1.585         ASTM D542	1.00 mm	900	°C	
1.00 mm       850 °C         3.00 mm       850 °C         Optical       Nominal Value       Unit       Test Method         Refractive Index       1.585       ASTM D542	3.00 mm	960	°C	
3.00 mm 850 °C  Deptical Nominal Value Unit Test Method  Refractive Index 1.585 ASTM D542	Glow Wire Ignition Temperature			IEC 60695-2-13
OpticalNominal ValueUnitTest MethodRefractive Index1.585ASTM D542	1.00 mm	850	°C	
Refractive Index 1.585 ASTM D542	3.00 mm	850	°C	
	Optical	Nominal Value	Unit	Test Method
Transmittance (3000 μm) 88.0 % ASTM D1003	Refractive Index	1.585		ASTM D542
	Transmittance (3000 µm)	88.0	%	ASTM D1003

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<sup>&</sup>lt;sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>&</sup>lt;sup>2</sup> 2.0 mm/min

<sup>&</sup>lt;sup>3</sup> short time test