

Panlite® K-1300Y

TEIJIN LIMITED - Polycarbonate

General Information

General		
Properties	• Good Mold Release	• High Viscosity
Uses	• Film	• Sheet
Appearance	• Clear/Transparent	
Forms	• Pellets	
Processing Method	• Extrusion	• 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)	2.8	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 (23°C)	2350	MPa	ISO 527-1/1
Tensile Stress (Yield, 23°C)	60.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	6.0	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	> 50	%	ISO 527-2/50
Flexural Modulus ² (23°C)	2200	MPa	ISO 178
Flexural Stress ² (23°C)	90.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	89	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/B
0.45 MPa, Unannealed	145	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	132	°C	
Vicat Softening Temperature	151	°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 (1.5 mm)	125	°C	UL 746B
RTI Imp (1.5 mm)	115	°C	UL 746B
RTI Str (1.5 mm)	125	°C	UL 746B

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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 (0.38 mm)	HB		UL 94
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.585		ASTM D542
Light Transmittance (3000 μm)	88.0	%	ASTM D1003

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	> 5.0	hr	
Processing (Melt) Temp	270 to 320	°C	
Mold Temperature	80 to 120	°C	

Notes

- ¹ Typical properties: these are not to be construed as specifications.

² 2.0 mm/min

³ short time test