

Panlite® ML-520ZLS

TEIJIN LIMITED - Polycarbonate

General Information

Product Description

Injection Molding grade, Light diffusion grade, Weather resistance, Flame resistance

General

Properties	• Flame Retardant	• Low Light Diffusion	• UV Resistant
Uses	• LEDs	• Lighting Applications	• Lighting Diffusers
Appearance	• Milky White		
Forms	• Pellets		
Processing Method	• 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)	3.0	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	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield, 23°C)	64.0	MPa	ISO 527-2/50
Tensile Stress (Break, 23°C)	50.0	MPa	ISO 527-2/50
Tensile Strain (Break, 23°C)	20	%	ISO 527-2/50
Flexural Modulus ² (23°C)	2200	MPa	ISO 178
Flexural Stress ² (23°C)	97.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	9.0	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	123	°C	
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)	130	°C	UL 746B
RTI Imp (1.5 mm)	125	°C	UL 746B
RTI Str (1.5 mm)	130	°C	UL 746B
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.5 mm)	V-0		UL 94
Optical	Nominal Value	Unit	Test Method
Light Transmittance			JIS K7361
1000 μm	88.0	%	
2000 μm	86.0	%	

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Processing Information		
Injection	Nominal Value	Unit
Drying Temperature	120	°C
Drying Time	5.0 to 8.0	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