

Panlite® ML-5202ZHP

Polycarbonate

TEIJIN LIMITED

Message:

Extrusion molding grade, Light diffusion grade, Weather resistance, Flame resistance

General Information			
UL YellowCard	E50075-100731532		
Features	Good Light Diffusion		
	Light stabilization		
	Good weather resistance		
	Flame retardancy		
Uses	LEDs		
	Lighting Applications		
	Illumination diffuser		
Appearance	Translucent		
	milky white		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	2.50	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Transverse flow: 4.00mm	0.50 - 0.70	%	Internal method
Flow: 4.00mm	0.50 - 0.70	%	Internal method
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			ISO 527-2/50
Yield	65.0	MPa	ISO 527-2/50
Fracture	53.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	6.0	%	ISO 527-2/50
Nominal Tensile Strain at Break	25	%	ISO 527-2/50
Flexural Modulus ¹	2350	MPa	ISO 178
Flexural Stress ²	97.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method

Charpy Notched Impact Strength (23°C)	9.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	123	°C	ISO 75-2/A
Linear thermal expansion coefficient			ISO 11359-2
Flow	7.0E-5	cm/cm/°C	ISO 11359-2
Lateral	7.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec (1.5 mm)	130	°C	UL 746
RTI Imp (1.5 mm)	125	°C	UL 746
RTI (1.5 mm)	130	°C	UL 746
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			UL 94
1.5 mm	V-0		UL 94
3.2 mm	5VA		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
1.5 mm	960	°C	IEC 60695-2-12
3.0 mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.5 mm	850	°C	IEC 60695-2-13
3.0 mm	850	°C	IEC 60695-2-13
Optical	Nominal Value	Unit	Test Method
Transmittance (3000 μm)	84.0	%	ASTM D1003
NOTE			
1.	2.0 mm/min		
2.	2.0 mm/min		

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