

Panlite® ML-1105

TEIJIN LIMITED - Polycarbonate

General Information			
Product Description			
Light diffusion grade, (Non corresponding UL96)			
General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• High Light Diffusion		
Uses	• Automotive Interior Parts • 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/cm³	ISO 1183
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	2400	MPa	ISO 527-2/1
Tensile Stress (Yield)	61.0	MPa	ISO 527-2/50
Tensile Stress (Break)	56.0	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 ²	2230	MPa	ISO 178
Flexural Stress ²	93.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	40	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	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)	129	°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
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093

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Optical	Nominal Value	Unit	Test Method
Transmittance (3000 μm)	41.0	%	ASTM D1003

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 2.0 mm/min