

TYPICAL PROPERTIES OF OPTICAL POLYCARBONATE FILM

Classification

- Light Grade Series

Features

Light Grade Series:

- Excellent light-guiding performance
- Strong impact resistance
- Uniform light emission

Applications

Light Grade Series:

- Laptops
- Illuminated keyboards
- Tablet backlight modules
- Navigation modules

- Optical Grade Series

Optical Grade Series:

- High light transmittance
- Low internal stress
- Small surface tension difference
- Good impact resistance and formability

Optical Grade Series:

- Windows
- Display panels
- Electronic display screens
- Navigation modules

Type	Color	Texure	Thickness(mm)	Width(mm)
Specification				
Film	Natural	Polished/Polished	0.125 - 0.5	930, 1220
Sheet			0.375 - 1.0	915, 1000
Tolerances	0.25 < T ≤ 0.5mm ± 5%, 0.1 ≤ T ≤ 0.25mm ± 10%			

Properties	Value	UNITS	Method
PHYSICAL			
Specific Gravity	≥1.2	G/cm ³	ISO 1183
Haze	<0.5	%	ASTM D1003
Light Transmission	>90	%	ASTM D1003
Water Absorption Equilibrium	≤0.35	%	ASTM D570
MECHANICAL			
Tensile Strength	TD:≥55 MD:≥60	MPa	ISO527
Tensile Modulus	≥2200	MPa	ISO527
Flexural modulus	≥90	MPa	ISO178
Elongation-at-break	≥90	%	GB/T1040.3
Temperature Resistance			
Vicat Softening Temperature	148	°C	ISO306
Thermal Expansivity	6.5*10 ⁻⁵	/°C	ISO11359
Electrical			
Permittivity	≥3.0	-	IEC60250
Voltage test	≥30	KV/mm	IEC60243(DC)
Volume Resistivity	≥1013	Ω.cm	IEC60093
Surface Resistivity	≥1014	Ω	IEC60093