

Product Name : CCL+

Type : Clear

Materials : Polycarbonate

Dimension : User spec

Thickness : 0.100mm~3.0mm

Property	Test Method	Units	Value	Note
Manufacturing Specifications				
Thickness Tolerance	Thickness Measuring System	%	< ±5	0.5mm or less than 0.5mm
			< ±3	more than 0.5mm
Physical Property				
Specific gravity	ISO 1183		1.2	
Water absorption@23°C ,24hr	ISO 62	%	0.2	
Mechanical and Thermal Property				
Tensile Strength at yield	ISO 527-2	MPa	56.5~66.5	
Tensile Modulus	ISO 527-2	GPa	2.1~2.5	
Tensile Elongation at Break	ISO 527-2	%	>100	
Flexural Strength	ISO 178	MPa	80.4~90.2	
Flexural Modulus	ISO 178	GPa	2.2~2.35	
Izod Impact Strength	ISO 180	J/m	740~980	
Rockwell Hardness	ISO 2039-2	M scale	60~70	
Specific Heat	ISO 11357-4	kJ/kg-°C	1.09~1.26	
Heat Deflection Temp.(1.8MPa)	ISO 75-2	°C	130	
Coefficient of Thermal Conductivity	ISO 8302	W/m °K	0.19	
Coefficient of Linear Thermal Expansion	ISO 11359-2	mm/mm/°C	70 x 10 ⁻⁶	
Optical Property				
Refractive Index n _D	ISO 489		1.59	
Light Transmittance	ASTM D1003	%	>89	at 550nm
Yellow Index	ASTM E313	%	<0.7	
Haze	ASTM D1003	%	<0.4	
Electrical Property				
Dielectric Strength	ASTM D149	kV/mm	55~110	0.25~0.8mm
Surface Resistivity	ASTM D257	Ω/□	>10 ¹⁶	
Volume Resistivity	ASTM D257	Ω-cm	>10 ¹⁵	
UL Flammability Rating				
Thickness 0.12 - 0.28mm	UL94		VTM-2	UL File No.
Thickness 0.38 - 3.0mm	UL94		V-2	E226770
RoHS				
Cadmium(Cd)			N.D.	
Lead(Pb)			N.D.	
Mercury(Hg)			N.D.	
Hexavalent Chromium(Cr VI)			N.D.	
Polybrominated Bisphenyl(PBBs)			N.D.	
Polybrominated Diphenyl Ether(PBDEs)			N.D.	Test Report
Halogen				
Bromine(Br)			N.D.	
Chlorine(Cl)			N.D.	
Fluorine(F)			N.D.	
Iodine(I)			N.D.	

* These are typical properties are not intended for specification purposes.