

TEIJIN

Human Chemistry, Human Solutions

Panlite[®] sheet
Panlite[®] Film

General Grades

General Grades Features

Grades:

PC-1151、PC-2151

Features:

Impact resistance

Impact strength about 250 times stronger than glass and about 30 times stronger than acrylic

Heat resistance

Wide operating temperature range from -40°C to 125°C

Transparency

High transmittance comparable transparency to glass

Processing

Easy processing such as cutting, drilling, etc.

Dimensional stability

Excellent creep properties and minimal dimensional change even after long-term use

Electrical properties

Excellent insulation over a wide temperature range

Examples of Panlight sheets and films in use



Automotive meter dial



Radio-controlled car body



Sports helmets



Dummy bottles in vending machines



Suitcase exteriors



Game machine reels

Basic Physical Properties of General Grades (PC-1151/PC-2151)

Property	Unit	Test method	Measurement conditions	Measured value
Density	kg/m ³	ISO 1183	–	1,200
Water absorption	%	ISO 62	23°C in water for 24h	0.2
Light transmittance	%	ISO 13468-1	1mm thick	90
Refractive index	–	ASTM D542	–	1.585
Tensile modulus	MPa	ISO 527-1 and ISO 527-2	1mm/min	2,400
Tensile yield stress	MPa		50mm/min	61
Tensile yield distortion	%		50mm/min	6
Tensile fracture designation distortion	%		50mm/min	>50
Flexural modulus	MPa	ISO 178	2mm/min	2,300
Flexural strength	MPa		2mm/min	91
Charpy impact strength	kJ/m ²	ISO 179	Notched	76
Heat deflection temperature	°C	ISO 75-1 and ISO 75-2	Load 1.80MPa	129
	°C		Load 0.45MPa	142
Vicat softening point		ISO 306	50°C/h 50N	149
Coefficient of linear expansion	×10 ⁻⁴ /°C	ISO 11359-2	–	0.7
Specific inductive capacity	–	IEC 60250	100Hz	3.1
			1MHz	3
Dielectric loss tangent	×10 ⁻⁴	IEC 60250	100Hz	10
			1MHz	90
Volume resistivity	Ω·m	IEC 60093	–	>1×10 ¹³
Surface resistivity	Ω	IEC 60093	–	>1×10 ¹⁵
Withstand voltage	MV/m	IEC 60243-1	Short time test	30
Tracking resistance	–	IEC 60112	–	250
Temperature index	°C	UL 746B	Electrical 1.47mm thick	125
			Impact 1.47mm thick	115
			Non-impact 1.47mm thick	125

Note:
The values in the above table are measured, not guaranteed values

Standards for General Grades List

● Flat plate standard size

Grade	Size Width (mm) × Length (M)	Thickness (mm)				
		0.5	0.7	0.8	1.0	1.2
PC-1151	914×1838	0.5	0.7	0.8	1.0	1.2

● Roll standard size

Grade	Size					
	Thickness (mm)	0.125	0.18	0.25	0.3	0.38
PC-2151	Width (mm)	927	927	927	927	927
PC-1151	Length (M)	400	350	300	250	200

※With masking film on both sides

※Please contact us for sizes other than the above.