

**TEIJIN**

*Human Chemistry, Human Solutions*

**Panlite® Film**

**Light Guide Film**

# Light Guide Film Features

Grades:

PC-1152、PC-2152

Features:

Polycarbonate light guide film developed for small and medium-sized display.

- **Optical properties**

High transparency, high brightness and excellent color reproducibility.

- **Product application**

Surface shaping can be done on thin, large-area surface, which is a limitation of injection molding.

- **Mechanical properties**

High impact resistance and easy to handle. Good dimensional stability and easy post-processing.

- **Lineup**

Product thickness :

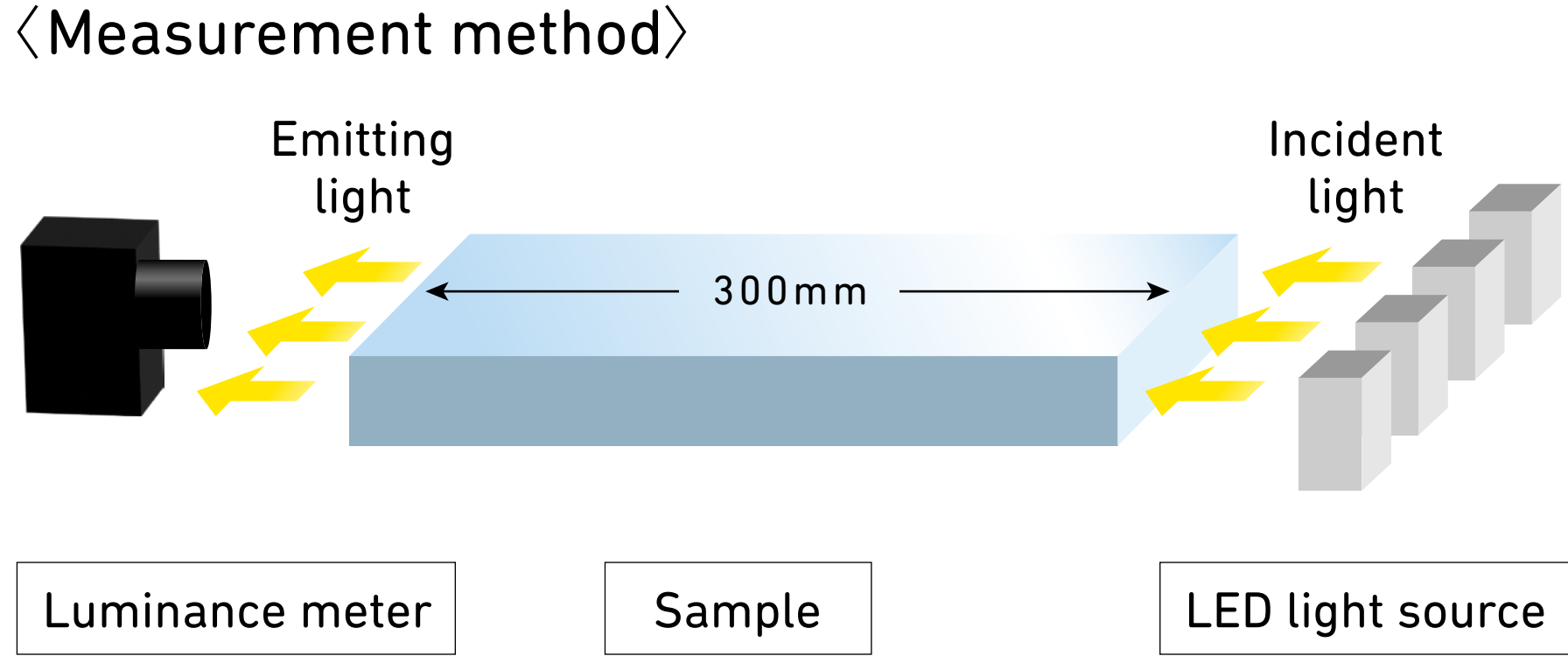
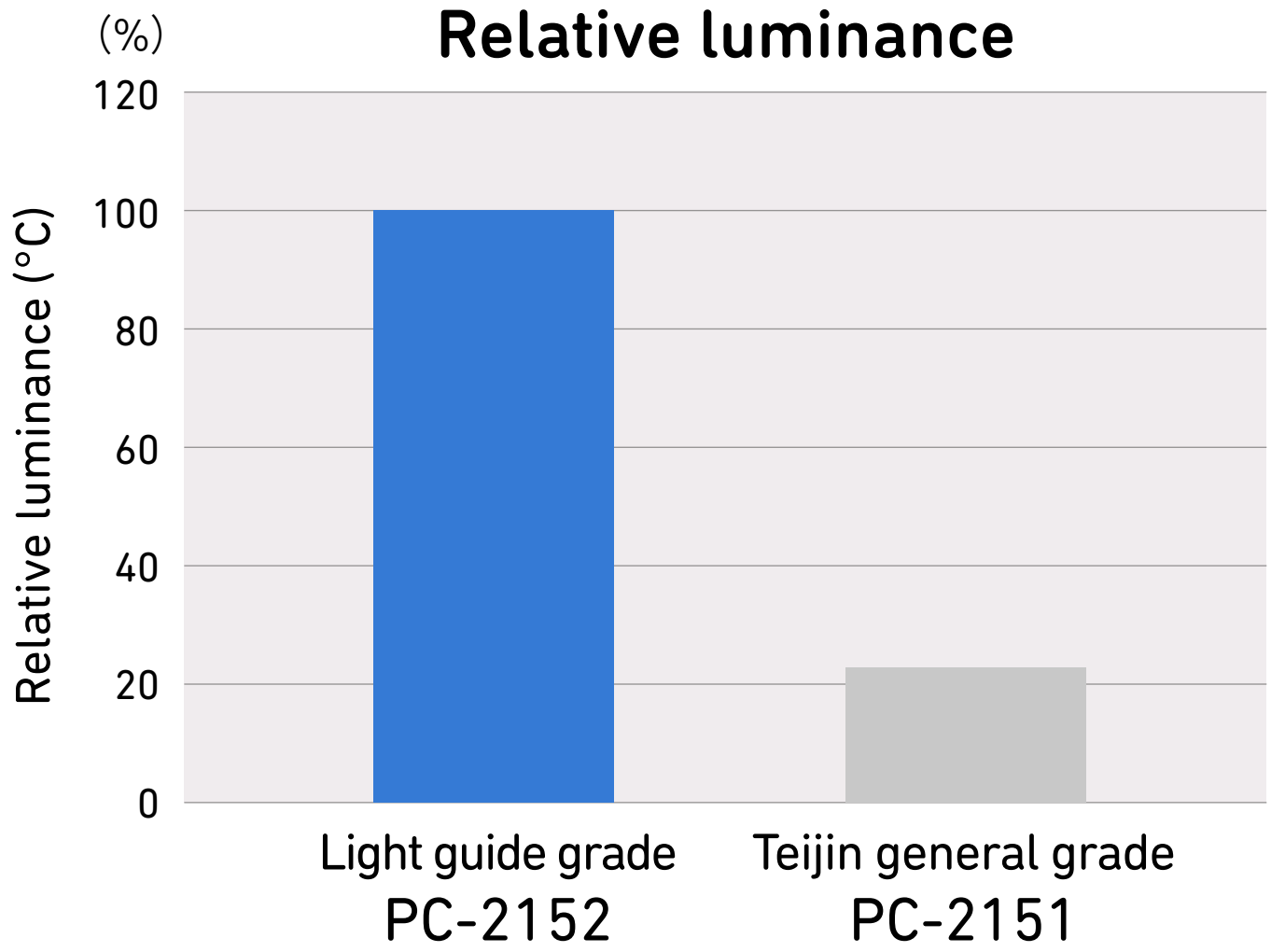
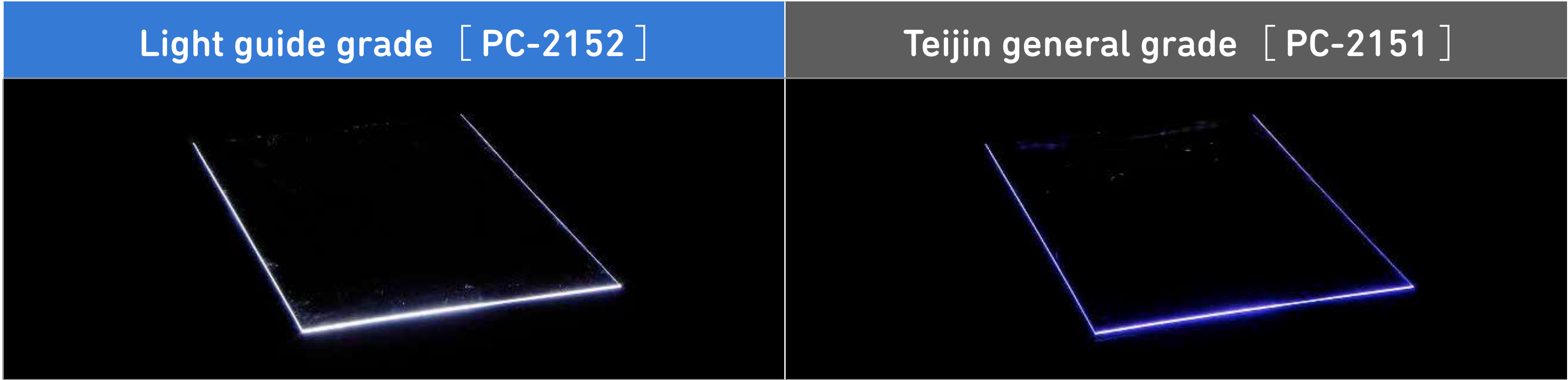
PC-2152 ... 0.125mm to 0.5mm

PC-1152 ... 0.25mm to 0.55mm

\*Please contact us for sizes



# Optical Properties



Note: The above values are measured, not guaranteed values

# General Physical Properties

Property	Test method	Measurement conditions	Unit	PC-1152 PC-2152 (Light guide grade)	PC-1151 PC-2151 (General grade)
Density	ISO 1183	–	kg/m <sup>3</sup>	1,200	1,200
Water absorption	ISO 62	23°C in water for 24h	%	0.2	0.2
Total light transmittance	ISO 13468-1	0.25mm thick	%	90.3	90.2
Refractive index	ISO489	–	–	1.585	1.585
Tensile modulus	ISO 527-1/2	1mm/min	MPa	2,400	2,400
Tensile yield stress		50mm/min	MPa	61	61
Tensile yield distortion		50mm/min	%	6	6
Tensile fracture designation distortion		50mm/min	%	>50	>50
Flexural strength	ISO 178	2mm/min	MPa	91	91
Charpy impact strength	ISO 179	Notched	kJ/m <sup>2</sup>	76	76
Heat deflection temperature	ISO 75-2	1.8MPa	°C	129	129
Vicat softening point	ISO 306	50°C/h 50N		149	149
Coefficient of linear expansion	ISO 11359-2	–	×10 <sup>-4</sup> /°C	0.7	0.7

Light guide grades PC-1152/2152 have the same physical properties as general grades PC-1151/2151.