

Polycarbonate Diffuser Film (UVTPC-DI)

UVTPC-DI Polycarbonate Diffuser Film helps to get soft and comfortable light as the high haze and light transmittance. Meantime, it offers excellent impact resistance, good flame retardant property and dimensional stability in a large temperature from -40 °C to 120 °C.

Therefore, it is the right material for the LED lamp, LED sign, architectural lighting system, elevator lighting system, railcar lighting system, etc. Otherwise, Polycarbonate Diffuser Sheet/Film is also the right choice for industry applications including electron industry, machine vision system and medical device inspection.



Mian Benefits

- Excellent toughness and impact resistance, it is virtually unbreakable;
- High high haze, light transmittance, and excellent diffusion of LED hot spots;
- Easy to machine to any shapes you want, can be cold bent and thermal formed;
- Good profermance at a large temperature from -40 °C to 120 °C;
- More flexible and available in UV protective layer for for outdoor use;

Product Range

Model	Description	Surface
UVTPC-DI-85	Light transmittance 85%, Haze 95%	Velet on one or two sides
UVTPC-DI-85F	Light transmittance 85%, Haze 95%, Fire rating V0	Velet on one or two sides
UVTPC-DI-60	Light transmittance 60%, Haze 99%	Velet on one or two sides
UVTPC-DI-60F	Light transmittance 60%, Haze 99%, Fire rating V0	Velet on one or two sides

Thickness

Thickness (mm)	UVPC-PD-85	UVPC-PD-85F	UVPC-PD-60	UVPC-PD-60F
0.8	○	○	○	○
1	○	○	○	○
1.2	○	○	○	○
1.5	○	○	○	○
2	○	○	○	○
2.5	○	○	○	○
3	○	○	○	○

- Customized thicknesses are available upon request, subject to a minimum order.
- Standard Sizes are 1220 × 2440 mm, customized sizes are available upon request, subject to a minimum order.

Physical Properties

Property	Test Method	Unit	Value
Light Transmission	ASTM D1003	%	55±3 or 75±3
Haze	ASTM D1003	%	95±2 or 68±5
Density	ISO 1183	g/cm ³	1.2
Water Absorbing Capacity	ASTM D570	%	0.3
Tensile Strength	ISO 527	MPa	60
Elongation	ISO 527	%	>50
Tensile Modulus	ISO 527	MPa	2300
Flexural Strength	ISO 178	MPa	85
Dielectric Constant	IEC60250	-	3

Resistant Puncture Voltage	IEC 60243	KV/mm	30
Arc Resistivity	IEC60112	-	250
Surface Resistivity	IEC 60093	Ω/square	1.00E+16
Volume Resistivity	IEC 60093	Ω-cm	1.00E+17
Coefficient of Thermal Expansion	ISO 11359	×10 ⁻⁵ /°C	5.8
Thermal Conductivity	ASTM D5470	W/(m*K)	0.2
Thermal Shrinkage (at 150°C)	ASTM D1204	%	0.5~0.7
Tg	ISO 11357	°C	152
Flame retardance	UL94		V-2 or V-0