Guide | Diffuser Lenses

If Diffusers Block Light, What Is the Point?

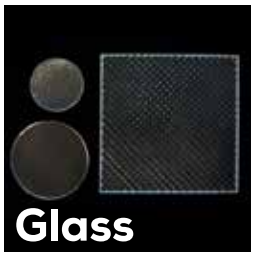
Diffusers (Light Covers) are a great way to achieve your desired light intensity and color. While direct light from LEDs can be very bright and intense, users might aim for softer, more controlled lighting options.

DT: Clear Diffusers (Transparent)
Allow excellent light transmission, but the LED lights are somewhat visible

DS: Satin Diffusers (Matte)
Remove hot spots and glare with medium light transmission and LED concealment

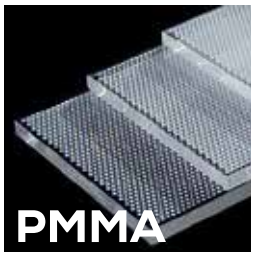
DO: Frosted Diffusers (Milky)
Provide uniform light diffusion and great LED concealment but less light transmission

- **Eliminate hot spots:** This is critical to achieving compelling interior lighting harmony.
- **Scatter light well:** A glow, rather than a sharp beam is more comfortable to the eyes.
- **Hide the light source:** Applicable in flat, evenly illuminated light elements such as backlit displays.
- **Improve aesthetics:** Mimic natural sunlight in larger expanses and eliminate harsh shadows.



TEMPERED

POLYCARBONATE



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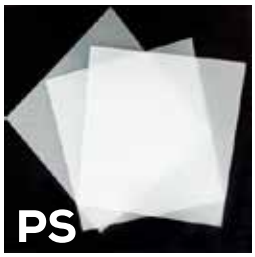

POLYSTYRENE

POLYPROPYLENE

Graded 1-5, 5 Is Best	GLASS	PC	PMMA	PS	PP
Light Transmittance:	5	3	4	3	3
Scratch Resistance:	5	2	3	3	2
Impact Resistance:	1	5	2	2	5
Moisture Resistance:	5	4	2	4	4
Weather Resistance:	5	3	4	1	1
Chemical Resistance:	5	2	4	4	2
Fire Resistance:	5	4	1	1	4
Low System Cost:	1	5	4	4	5
Design Flexibility:	1	5	3	4	2
Weight Reduction:	1	4	3	4	5

Resistance to Discoloration
Exposure to ultra-violet light will cause PC, PS and PP to become yellow unless they have a UV-resistant coating. However, PMMA is inherently stable under UV light and will not degrade. PMMA also does not turn yellow with age as in the case of PS.

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