

PLEXIGLAS® EndLighten T

The transparent and brilliant solution for edge-lit applications



PLEXIGLAS® EndLighten T

The transparent and brilliant solution for lighting design

PLEXIGLAS® EndLighten T is the perfect solution for edge-lit applications.

Light is fed into the highly transparent material via the edge and is **evenly emitted across the surface**.

Unlike the familiar grade of PLEXIGLAS® EndLighten, the new material shows no clouding and **emits light at a much more vertical angle to the surface**.

Viewed from the front, the PLEXIGLAS® EndLighten T sheet is **250% brighter**.

Applications

PLEXIGLAS® EndLighten T is the ideal material for evenly illuminating a transparent surface with LEDs. The surface glows in the same color as the chosen LED.

Transparent

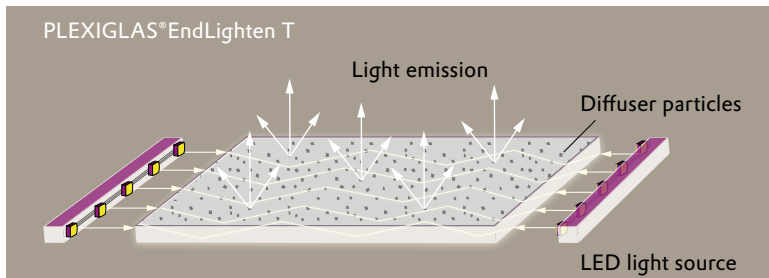
If no light is fed in, the material offers a clear view without any disturbing optical effects due to clouding, halftone printing or inscribed textures. This makes it perfectly suited for architecture and design, furniture, store fixtures or exhibition booths. It can be used for example as an illuminated partition or door infill panel, or for ambient lighting.

Non-transparent

For non-transparent applications, PLEXIGLAS® EndLighten T is the ideal material for very slim, large-scale displays and picture frames, luminous ceilings and walls, citylight posters and many other uses.

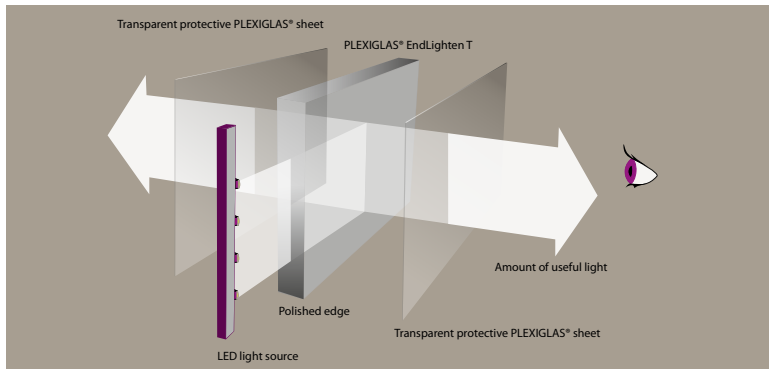


The Technology



Thanks to its embedded diffuser particles, PLEXIGLAS® EndLighten T specifically reduces total reflection, allowing light rays to exit the sheet via the surfaces too.

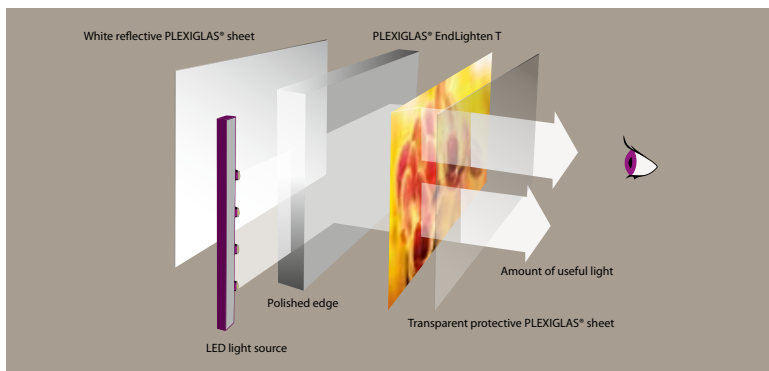
Standard clear PMMA conducts light by means of total internal reflection. Light rays remain inside the sheet and only exit via the edges.



Transparent application

Light is fed into the PLEXIGLAS® EndLighten T sheet via the edge and is evenly emitted across the surface, which is optimized for vertical viewing.

The ideal configuration for a transparent application comprises one clear-transparent backing panel and one clear-transparent front panel, so that no light is emitted through any scratches on the surface.



Non-transparent applications

Light is fed into the PLEXIGLAS® EndLighten T sheet via the edge and is evenly emitted across the surface, which is optimized for vertical viewing.

A white reflective sheet is used as the backing material. The image carrier and/or a diffuser sheet can be installed at the front.

Most important information at a glance

- For optimum luminous efficiency, use the suitable grade of PLEXIGLAS® EndLighten T SM to XXL for the desired area to be illuminated.
- Anything that is bonded, laminated or printed on PLEXIGLAS® EndLighten T impairs its lighting engineering properties.
- All edges should be polished to reduce diffusion losses.
- To prevent light loss via the unlit edges, they should be reflective. This can be achieved for example by applying a white coating to the inside of the profiles that enclose the sheet edges.
- The LEDs should be flush with the edge as far as possible to ensure that light is correctly fed in.
- For transparent applications, we recommend the use of transparent cover sheets to protect the surface from scratching.
- For non-transparent applications, we recommend the use of a white reflective sheet.

The range

Lighting range with lighting on both sides in mm	Lighting range with lighting on one side in mm	Thickness in mm	Recommended PLEXIGLAS® EndLighten T grade/grade number
up to 300	up to 150	4	OF10 SM
300–600	150–300	4, 6, 8, 10	OF11 L
600–1,200	300–600	4, 6, 8, 10	OF12 XL
1,200–2,000	600–1,000	8, 10	OF13 XXL

® = registered trademark

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Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment).

The Performance Polymers Business Unit of Evonik Industries is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the trademark ACRYLITE® in the Americas.

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