



PLEXIGLAS®
Solid Sheet

PLEXIGLAS® LED for backlighting, light covers, OM200 SC

Product

The translucent extruded sheet material OM200 SC, which belongs to the PLEXIGLAS® LED product family, was developed as a cover for LED light fixtures (Fig. 1). Combined with an LED light source, this makes it possible to obtain a higher optical output ratio with superior light diffusion.

Particularly where there is little space between the LED and the material, it distributes light in an excellent manner and blends the light cones in the best possible way. There are no dazzling LED light spots; the light is distributed across the surface. When the light is switched off, the cover conceals the inner workings of the light fixture.

The material can also be provided with a satin surface on one side. This eliminates disturbing reflections on the light fixture (when the satin surface is installed facing outwards), or gives the light fixture a stylish sheen when the special high-gloss surface faces outwards. The satin surface is obtained by incorporating micro beads into the surface.

Properties

In addition to the well-known and proven properties of PLEXIGLAS®, such as

- excellent light transmission and brilliance,
- extremely high weather resistance,
- ease of fabrication,
- low weight – half the weight of glass,
- 100% recyclability,

PLEXIGLAS® LED OM200 SC offers the following special features:

- Very high light transmission combined with strong light diffusion. Fig. 2 shows the light distribution curve of a strongly focused light source.
- If the satin surface is installed facing outwards, the satin effect suppresses reflections. The satin surface can be thermoformed with no reduction in the satin effect.
- Installing the high-gloss surface on the outside gives the light fixture a noble appearance.
- The micro bead technology provides specific, efficient frontal light diffusion.

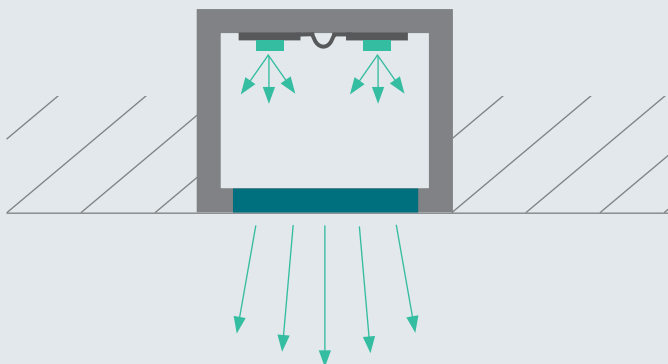


Fig. 1: Installation in an LED light fixture

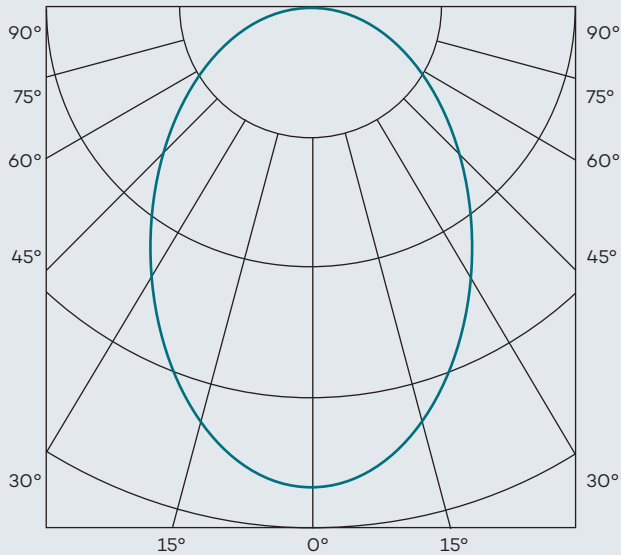


Fig. 2: Light distribution curve

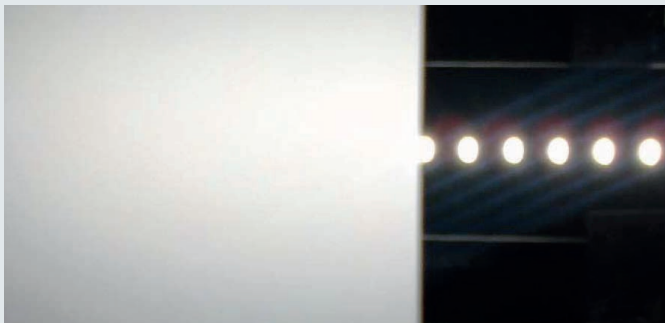


Fig. 3: Light channel with LEDs spaced at 8 mm. Cover spaced at 10 mm.

Applications

This option makes PLEXIGLAS® LED OM200 SC particularly suitable as a cover for

- light fixtures with a high-gloss surface, or with a reflection-suppressing, satin surface
- light channels, strip lights, luminous ceilings (see Fig. 3 for example)

Machining

PLEXIGLAS® LED OM200 SC can be machined just like standard PLEXIGLAS® GS. The following Guidelines for Workshop Practice are available for PLEXIGLAS®:

- Machining PLEXIGLAS® (Ref. No. 311-1)
- Forming PLEXIGLAS® (Ref. No. 311-2)
- Joining PLEXIGLAS® (Ref. No. 311-3)
- Surface Treatment of PLEXIGLAS® (Ref. No. 311-4)
- Fabricating Tips for PLEXIGLAS® Solid Sheet (Ref. No. 311-5)

Physical forms

PLEXIGLAS® LED OM200 SC is available as follows:

PLEXIGLAS® LED OM200 SC	
Size	3050 x 2050 mm
Thickness	3 mm
Light transmission τ_{D65} (DIN 5033)	72 %

Other thicknesses and sizes are available on request.

You can find more details in the PLEXIGLAS® Sales Handbook. For more typical values, please consult the Technical Information sheet PLEXIGLAS® GS/XT (211-1).

OM200 SC belongs to the PLEXIGLAS® LED product family and was specially developed for the illuminated signage industry. You can find other interesting products developed for LED applications in the information sheet "PLEXIGLAS® LED, Overview" (Ref. No. 212-6).

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