

ACRYLITE® LED

color-changing back lit

Product

ACRYLITE® LED color-changing back lit acrylic sheet appears dark during the day and with added backlighting, glows white at night. This unique attribute is possible due to a special pigment formulation that yields 10–19 percent light transmittance when backlit, yet appears dark and opaque without backlighting.

Particularly in illuminated signs, store fixtures and exhibition booths, the combination of LEDs with ACRYLITE® LED color-changing back lit offers maximum efficiency and superior lighting technology.

Illuminated signs often glow 24 hours a day, which is why energy-saving construction is becoming increasingly important. Illuminated signs made with ACRYLITE® LED color-changing back lit and backlit with modern LED technology, consume less energy than conventional fluorescent and neon tubes and also require much less maintenance. The full potential of LEDs can only be harnessed using the right material and ACRYLITE® LED color-changing back lit is specially designed for use in illuminated signs with LEDs.

The matte texture of ACRYLITE® LED color changing backlit texture provides diffusion, however it is sometimes necessary to add a separate diffusing panel. Additional diffusion can be achieved by using a white vinyl diffusing film or placing a thin panel (such as 0.060") of white sign material between the ACRYLITE® LED and the light source.

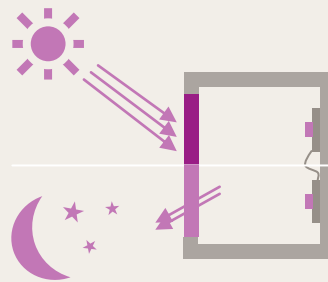


Fig. 1: Outline of color change principle



Properties

In addition to the high quality and proven performance of ACRYLITE®, such as:

- Extremely weatherable for outdoor applications
- Easily formed and fabricated
- 100% recyclability

ACRYLITE® LED color-changing back lit offers the following special features:

- black in daylight and glows in the color of the LEDs at night (see Fig. 1)

Applications

ACRYLITE® LED color-changing back lit is especially suitable for:

- Illuminated signs
- Exhibition booth
- Store fixture/retail displays
- Special-effect luminous walls in architecture

Guidelines

- This sheet works best when the edges are enclosed in the sign box or channel. There should be no overhanging edges if uniform appearance is desired.

- The Black and White sheet effect will be achieved regardless of whether the textured side is facing inward or outward. If the texture is facing out, the sign surface will have a matte appearance. If the texture is facing inward toward the light source, the sign surface will have a glossy appearance.
- Although the one-sided texture provides diffusion, it is sometimes necessary to add a separate diffusing panel to ensure that the image of the lamps is hidden. Alternately, a white vinyl diffusing film may be applied.
- The intensity of effect can be adjusted by varying the positioning of the light source and its intensity.

Product Specifications

Color	Standard	Transmission	
	Size	Thickness	τ_{D65}
Black/White		.118"	
9H04 SC	48x96	.177"	16%

This product belongs to the ACRYLITE® LED product family and was specially developed for the illuminated sign industry. You can find other interesting products developed for LED applications in the "ACRYLITE® Lighting Product Family Overview" (Ref. No. 3802A)

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