



The trend toward edge-lit ultra-slim signage

PLASTICS IN THE
SIGNAGE/GRAPHICS
INDUSTRY

by Steven J. Vaccaro

Sign makers always need to be forward thinking and on the lookout for the latest technologies and industry trends. One of the more recent and innovative developments to hit this market is incorporating edge lighting with a new type of acrylic material to produce ultra-slim, illuminated signs. This new acrylic sheet contains a filler material that diffuses light and redirects it to the side surface of the sheet, offering uniform illumination and neutral color presentation. This allows light sources to be concealed along the edge so that an ultra-slim profile is possible with high light output. Such signage takes up less space, is lightweight and impact-resistant and often is more energy-efficient.

By utilizing this new material, sign makers now have a cost-effective solution that offers a superior new level of luminous clarity, eye-pleasing color, and extremely bright illumination. Soon more of these ultra-slim signs will make their way into poster panels for airports, malls, hotel hallways, restaurants, bus shelters, and numerous other indoor and outdoor applications.



Lightweight and weather resistant, new ACRYLITE® EndLighten acrylic sheet from CYRO Industries allows concealed light sources in ultra-slim applications.

Thin is the way to go these days for signage, and for reasons more than just aesthetic. The Americans with Disabilities Act (ADA) has placed new codes regarding construction materials in office buildings, retail stores, hospitals, hotels, sport arenas, and any other public space to improve accessibility. These guidelines put limits on how much signage may protrude from walls. The bottom line: when making a sign or framed product, thinner is better.

While implementing manufacturing changes to make ADA-compliant signage might seem like a burden, it gives savvy sign-makers an opportunity to utilize these new technologies and provide businesses with a premium sign solution. It's an easy case to make: edge-lit ultra-slim signage made from new acrylic technologies can leave a lasting impression on viewers and positively impact sales of the advertised product or service.

Benefits of acrylic

Acrylic is the preferred substrate for ultra-thin signs because it offers several practical benefits in both fabrication and image display. For starters, acrylic will not yellow over time, making it a wise choice for outdoor applications. Acrylic's durability and flexibility do not deteriorate with age as it is exposed to weather and the elements.

New acrylic technologies incorporate neutral-colored diffuser particles within the sheet's formulation to ensure uniform light distribution without influencing sign color. Colored acrylic sheet is another option for designers to consider. The colored acrylic will not fade, and it can be combined with colored lights for distinct customized color blends to match, for example, company logos.

Clarity is another benefit to acrylic. It offers more than 92 percent light transmission, ensuring maximum visibility for informational signs and advertisements. This makes the illuminated sign much clearer and more vibrant compared to using glass or polycarbonate since these



CYRO's new acrylic sheet enables construction of extremely slim, compact luminous panels with high light output — creating a dazzling effect for outdoor signage, particularly at night.

materials only transmit about 87 percent of visible light.

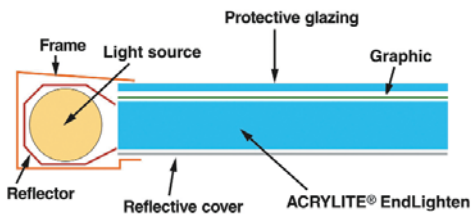
Acrylic is also easier for shipping and handling because of its weight and durability. Controlling breakage is critical for any business since product replacement and re-shipping can be costly and frustrating. Acrylic is flexible, highly break resistant, and therefore, one of the best materials for shipping. It is also a safe choice for public spaces since it does not shatter like glass.

Acrylic can also be modified with UV filtering properties so that graphic panels behind the acrylic sheet will not fade, extending a sign's service life. Special surface treatments such as non-glare finishes or scratch-resistant coatings can be added to enhance acrylic performance.

Edge lighting

Illuminating signs from the edge — for example with a single neon bulb or a string of LED lights — rather than from behind eliminates the need for deep cabinet constructions. Deep sign cabinets are often required to minimize both heat build-up and hot spots on the sign face.

By eliminating the cabinet, installation of ultra-thin signage becomes a real possibility. Entrepreneurial sign makers can incorporate lighting at the edge of the acrylic sheet within the frame to produce an ultra-slim, illuminated sign construc-



In this illustration of a lightbox, light sources can be provided with a reflector to ensure that a maximum amount of light enters the edges.

tion. This can then be marketed as a bundled solution to enhance a company's brand or advertisement.

Ultra-slim signs are especially important in high traffic areas where safety is the number one concern. There is only a minimal amount of installation time and hardware needed to mount such signage on walls or on their own stands, further reducing any potential hazards and costs.

Another advantage to using a sign with a slim profile design is flexibility. It is quick and easy to change the graphic panel inside an ultra-slim sign. Consider how all of these benefits play out for a sign in an outdoor bus shelter, for example. Swapping advertising displays is in-

expensive, there is more room in the bus shelter with this new, slimmer sign, and the technology enables extremely bright messaging.

"Thin" is also the law — for signs

Federal law could also be a factor in deciding to use thinner signage. Published in the Title III Regulations of the American with Disabilities Act (ADA), section 4.4.1 General in the Standards for Accessible Design, there is an addendum that requires that signs mounted on a wall not protrude more than four inches from the mount. This law forces a sign maker to either recess the sign into the wall at a very high cost, or find an alternative approach to addressing the ADA rule. Edge-lit acrylic is that alternative approach.

In response to this, you will see a trend for sign makers to promote a packaged solution. They will be able to offer the market an ADA-compliant sign that eliminates the worries of regulatory bureaucracy, and one that offers an upscale look. It will all be part of an integrated sign system incorporating brilliant illumination. By offering advertisers an attractive product and a healthy return on investment, edge-lit ultra-slim signs



Protective glazing made of ACRYLITE® acrylic sheet comes with optional surface treatments for scratch-resistance and non-glare finishes, making it a wise choice for displays in public areas. It's also a safe alternative to glass since acrylic is lightweight and does not shatter.

may be the next big thing to hit the sign market. ■

Steven J. Vaccaro is marketing manager, Sheet Department for CYRO Industries (Rockaway, NJ). He can be reached at (973) 442-6065, e-mail: steven_vaccaro@cyro.com.

For more information, contact: CYRO Industries, 100 Enterprise Drive, Rockaway, NJ USA 07866; (800) 631-5384, fax (973) 442-6117; or visit www.cyro.com.

Lower Operating Costs

"Forrest Auto Park, through the Savings Solutions program, has saved over \$6,500 on utility costs in one month alone. Projected Savings are \$40,000 over the next two years ... APPI continues to monitor my network of suppliers to ensure billing integrity. Little time and effort was required on my part."

David Moore, Fixed Operations Manager, Forrest Chevrolet

IAPD Savings Solutions

Available only through your IAPD member benefits

Affiliated Power Purchasers Int'l (APPI), independent utility consultants, analyze, negotiate, and manage the critical components of electricity, natural gas, water, waste management, freight, check processing, credit card processing, and telecommunications services.

For more information contact APPI at 800-520-6685 or info@appienergy.com



energy | utilities | consulting

800-520-6685
info@appienergy.com