

The bright stuff: frosted acrylic sheet helps OfficeMax signs shine

SPECIALTY
ACRYLICS

by CYRO Industries/Degussa

A corporate logo is one of the most essential components of a brand. The visual interpretation of a company's identity and character, a logo is a powerful tool for conveying the quality of products and services to customers. In a retail environment where consumers make quick purchasing decisions, successful logos are even more important for driving sales and establishing customer loyalty. As a result, when OfficeMax recently decided to differentiate its brand by switching the color motif of its corporate logo from a standard red to white and black, the change needed to be clearly communicated to consumers at retail locations.

Needing to alter the look of its stores to comply with the new logo, OfficeMax turned to North American Signs to create and manage the installation of new exterior signage at over 200 locations nationwide. Seeking an innovative material to create large-format LED channel letters, North American Signs found that frosted acrylic sheet offered the unique combination of aesthetics and performance necessary for the project.



ACRYLITE® SignFlex acrylic sheet from CYRO Industries/Degussa helps OfficeMax signs shine using new LED signage installed at over 200 retail locations.

Quality from the start

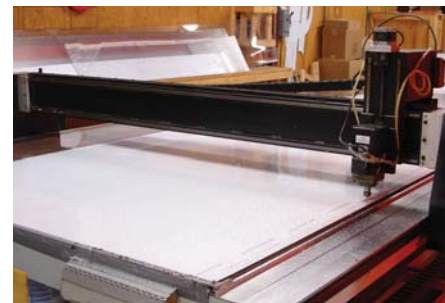
For the OfficeMax sign redesign project, North American Signs conceptualized 6-foot internally illuminated LED channel letters that would incorporate the corporate white/black color scheme. For the face of the signs to truly stand out, the firm needed a material that could not only withstand exposure to the outdoor environment, but also provide high light transmission and create a unique lighting effect able to grasp consumer attention. As they were researching material to fabricate the first set of new channel letters for an OfficeMax store near Cleveland, OH, USA, Doug McCoige, director of operations at North American Signs, came across frosted acrylic sheet when attending an industry trade show.

Specially formulated to provide a frosted appearance throughout its composition, frosted acrylic sheet possesses unique optical properties that evenly diffuse light without the use of a diffuser film, making it ideal for backlit applications. The acrylic sheet incorporates a textured surface that works to hide scratches, enhancing the service life of exterior signs that can be exposed to debris and other environmental elements.

A specific white frosted acrylic sheet appealed to McCoige for this project. Providing up to 60 percent light transmission, this version of the acrylic product incorporates a bright white pigment that creates a striking cloud-like appearance.

"Once I saw the light diffusion properties of the white frosted sheet, I knew it would be a great fit for the OfficeMax signs," explains McCoige. "Not only does the material allow a high level of light to pass through, but it also diffuses illumination hot spots for a smooth, even look."

When McCoige approached the chosen acrylic sheet manufacturer with the idea of using its frosted acrylic sheet for OfficeMax stores, their technical specialists provided expert support to meet the demands for this exterior signage," adds McCoige.



To make the signfaces, North American Signs custom-cut sheets of CYRO's ACRYLITE® SignFlex sheet because of its light-transmission properties.

Fabricating a brand icon

Once the material was selected, North American Signs was ready to begin fabricating new signage for each of the over 200 retail stores. To spell out the OfficeMax name in large-format channel letters, the firm started with a CNC-routed aluminum back for each letter.

Using a fully automatic computer-controlled channel letter bending machine, the company then fabricated the returns, or sides, of the letters by bending aluminum coil stock to appropriate shapes. These aluminum sides were painted white on the inside and black on the outside to maintain the brightness of the interior LED cavity while showing a black appearance on the letter surface. The illumination uses light emitting diode (LED) technology and is powered by LED 12-volt power supplies.

The sign facing varies by location. For retail stores with dark exteriors, including stores in shopping malls, white frosted acrylic sheet is adhered to the aluminum returns with a black trim cap to complete each letter.

"For these signs, it was essential to eliminate the appearance of hot spots that internal lighting can cause," comments McCoige. "Frosted acrylic sheet was a great choice since it can evenly diffuse light without requiring us to use a

separate diffuser film, and this makes fabrication simpler.”

To create a suitable contrast with the façade of stores featuring light-colored exteriors, however, the face of the sign is covered with a black vinyl that is evenly perforated with tiny holes. This gives the sign a black appearance during daytime hours, when the sign is unlit, and a bright white appearance during evening hours, when the LED lighting pierces through the perforations.

“The high light transmission of frosted acrylic sheet is central to the locations that use black perforated vinyl because it maximizes the amount of light that can pass through the holes to illuminate the sign,” remarks McCoige.

Mounting an image

Once a complete set of channel letters was fabricated for an OfficeMax location, North American Signs shipped the signage and mounting equipment to an affiliated installation company near the designated store. The combined durability of the frosted acrylic sheet and LED lights greatly reduced the risk of sign breakage during shipping, ensuring that each sign was received in a fully operational state.



Installation, made easier with light weight properties of ACRYLITE® SignFlex sheet, required a combination of a bucket truck, ladder and crane trucks. Each letter contains 3/8" rivnuts, set within the letters' backs, that are installed with stainless-steel, threaded rod.

“We haven’t experienced any breakage of the LED channel letters during shipment. This is a notable improvement over signs that employ alternative materials, like neon,” comments McCoige.

Along with the channel letters and equipment, each installer also received a full-size paper pattern from North American Signs, which was used to precisely

mark the areas to drill holes in the exterior of the store for mounting the sign. After these holes were completed, the pattern was removed, wires were run through the holes, and each channel letter was attached by stainless steel lag bolts to the storefront. The back of each letter incorporated a rivnut fastener that enabled secure wall attachment. The light weight of the frosted acrylic sheet also made the signs easier for installers to handle, further facilitating installation.

Shining results

As work continues for the sign update project, OfficeMax has been pleased with the new look and performance of the channel letter signs at its retail stores. “OfficeMax has expressed a strong, positive reaction to the new signs,” comments McCoige. “This accounts for the company’s interest in continuing the project to include the rest of its retail locations across the nation.” ■

CYRO Industries is a wholly owned subsidiary of Degussa. For further information, contact: CYRO Industries, 379 Interpace Parkway, Parsippany, NJ 07054 USA; (800) 631-5384, fax (973) 541-8447, e-mail: cyro.customer.service@degussa.com, www.cyro.com.