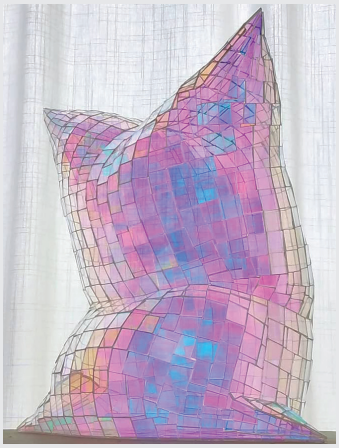
ACRYLITE®

ACRYLITE® Reflections iridescent
Extruded Sheet



Product

Rainbows never cease to fascinate us. We gaze at them in wonder and amazement. With their brilliant colors and awesome dimensions, they capture the attention of children and adults alike. Take advantage of this magical play of colors for your displays, signs, and store fixtures by using ACRYLITE® Reflections iridescent acrylic sheet.

This material magically shimmers with iridescent colors that change with the viewing perspective without the use of specialty lighting. It is a beautiful addition to the ACRYLITE® sheet product line and a real inspiration for all designers and creative professionals.

Features and Benefits

- Changes color depending on the viewing angle
- Uses ambient light to create its own lighting effects
- Produces mirror-like reflections
- Easy to saw, mill, drill, bend, and polish

Application

This sheet offers excellent solutions for the following applications:

- POP displays
- Signs
- Store fixtures/displays
- Dynamic trade show booths

Product Specification

Color	Color Number	Size	Thickness
Rainbow Dichromatic	0B008 RT	48“ x 96“	.080 (2mm)* .118 (3mm) .177 (4.5mm)* .236 (6mm)*

** Made to Order*

Important Notes

- The coated surface is protected by a clear masking film. The uncoated surface has blue masking film.
- Scratches cannot be polished off the coated surface. Please make sure not to scratch that surface.
- This Radiant sheet is meant for indoor use. It has only limited resistance to outdoor exposure.
- Store the sheet horizontally on a perfectly flat surface. Do not store vertically or near heat sources.
- This product has been reformulated and does not match the old 0A008 RT.

RÖHM

Fabrication

This material has a surface coating on one side that is responsible for the lighting effects. The following recommendations take this special feature into account during handling and fabrication. It can be fabricated with the same parameters and equipment as standard acrylic sheet. Correct positioning of the coated surface is essential in order to obtain perfect fabrication results.

Cleaning

Clean with mild soap and lukewarm water or ACRIFIX® AC 1010 Anti-Static Cleaner. Use a soft, clean cloth and gentle pressure (no rubbing). Make sure not to scratch the coated surface, because scratches cannot be removed by polishing this side of the sheet.

Machining

It can be sawn, drilled, milled, laser machined and edge-machined like standard ACRYLITE® premium acrylic sheet, provided the coated surface is positioned at the correct angle to the machining tool. Make sure that the cutting tools used for sawing, drilling, routing, lasering and edge treatment enter the coated surface and exit through the uncoated surface. Refer to ACRYLITE® fabrication manuals for details.

Bonding

Adhesives suitable for standard ACRYLITE® premium sheet are also compatible with ACRYLITE® Reflections iridescent sheet. Since our iridescent sheet is partially transparent, it is important that adhesive joints remain almost invisible on the uncoated surface.

The uncoated surface can be easily bonded to our standard sheet, providing comparable final bond strength. However, the final bond strength does differ noticeably when bonds are made with the coated surface. The bond with the coated surface can be improved to a certain extent using cyanoacrylate adhesives. Where high bond strengths are required, we recommend removing the surface coating in the area to be bonded.

If polyester tape is used to assist with bonding, please remove the strips of tape carefully after bonding is completed, pulling them off from the surface towards the edge. That avoids delamination of the coating at the edges.

ACRIFIX® Special Bonding Agents manufactured by Roehm are the perfect complement for cementing ACRYLITE® sheet products. When bonding the uncoated side of ACRYLITE® Reflections iridescent sheet, ACRIFIX® 1S 0117 Pure or ACRIFIX® 1S0107 Quick Set are recommended. These solvent cements have superior capillary action for better flow through, and dry quickly with a strong bond and attractive appearance. ACRIFIX® 1S 0117 is the only non-methylene chloride solvent cement in the North American market.

Linear Heating/Line-Bending

This sheet can be bent simply and quickly on standard line-bending machines. For best results, the coated side of the sheet should be on the side exposed to tensile stress (outer side of bend). At small bending radii, heat the uncoated side of the sheet. At large bending radii of more than 90°, it is advisable to heat the coated side.

Thermoforming/Stretch Forming

This product can be thermoformed to obtain a variety of shapes. If only one side of the sheet is heated, the coated surface should face the heat source. It is also suitable for moderate stretch forming using compressed air.

In this case, and during thermoforming, the coated surface of the sheet should be on the side exposed to tensile stress (outer side). Depending on the degree of stretching, the rainbow effect may be diminished. We therefore advise you to conduct preliminary trials. The recommended forming temperature is between 290 to 320 °F.

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Flame Polishing

The sheet can be flame-polished under the same conditions as standard acrylic sheet. For best results, flame-polish stacked sheet. The coated surfaces should face inwards, to protect them from the flame. If you would like to flame-polish individual sheets, we recommend placing the sheet with the coated surface on a sheet of standard acrylic for better protection.

Laser Cutting and Engraving

It can be successfully laser cut and laser engraved. Typically CO2 lasers are employed in sizes ranging from 25 watts to 400 watts per laser head. The primary benefit of using a higher powered laser is to increase cutting speed. Additionally, larger lasers often come equipped with an air or gas assist and a vacuum table. Both of these options help to remove vapors generated during the cutting operation leading to improved results.

The laser beam produces a narrow kerf in the plastic allowing for close nesting of parts and minimal waste. CO2 lasers vaporize the acrylic as they advance resulting in a clean polished edge but with high stress levels. Depending on the application, annealing acrylic sheet after laser cutting may be needed to minimize the chance of crazing during the service life of the part.

When laser engraving this iridescent sheet, start with the same operating parameters as used with continuously manufactured or extruded acrylics. The resulting engraved designs will have a relatively clear appearance (the same as with continuously manufactured and extruded acrylic sheet). The engraved images will not be as white as those achieved when engraving cell cast acrylic sheet.

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