ALLPLASTICS

PLEXIGLAS® RADIANT

Every Color of the Rainbow

PLEXIGLAS®
the original from Röhm

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 and draw your customers' attention in a similar way.

PLEXIGLAS® RADIANT

- changes its color depending on the viewing angle
- uses ambient light to create its own lighting effects
- produces mirror-like reflections
- shines in every color of the rainbow
- is easy to saw, mill, drill, bend and polish
- can be thermoformed into almost every desired shape.

These properties make PLEXIGLAS ® RADIANT the ideal material for designing eye-catching items, attention-grabbing displays, effective signs and dynamic, colorful tradeshow booths and store fix - tures. It is a beautiful addition to the PLEXIGLAS ® range and a real challenge for all designers and creative professionals.
PLEXIGLAS® RADIANT can be fabricated like any other standard grade of PLEXIGLAS ®, bearing in mind a few special points.

Fabricating Recommendations

Preliminary Remarks

PLEXIGLAS® RADIANT acrylic sheets have a surface coating on one side that is responsible for the light - ing effect. The following recommendations take this special feature of PLEXIGLAS ® RADIANT into account during handling and fabrication.
PLEXIGLAS® RADIANT can be fabricated with the same parameters and equipment as standard acrylic sheets. Correct positioning of the coated surface is es - sential in order to obtain perfect fabrication results with PLEXIGLAS® RADIANT.

Cleaning

Clean PLEXIGLAS ® RADIANT with a mild soap solution or deaning agent and lukewarm water. 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

PLEXIGLAS® RADIANT can be sawn, drilled, milled and edge-machined like standard PLEXIGLAS ® according to the recommendations in our Guidelines for Workshop Practice – Machining PLEXIGLAS ® (Ref. No. 311-1), provided the coated surfaces are positioned at the correct angle to the machining tool. Please make sure that the cutting tools used for sawing, drilling, routing and edge treatment enter the coated surface and exit through the uncoated surface.

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Bonding

The adhesives suitable for PLEXIGLAS ® are also suitable for PLEXIGLAS ® RADIANT. Since PLEXIGLAS ® RADIANT is partially transparent, adhesive joints remain almost invisible on the uncoated surface. The uncoated surface of PLEXIGLAS ® RADIANT can be easily bonded with standard PLEXIGLAS ®, 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.

Linear Heating/Line-Bending

PLEXIGLAS® RADIANT sheets 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, please heat the uncoated side of PLEXIGLAS® RADIANT. At large bending radii of more than 90°, it is advisable to heat the coated side.

Size	Thickness
2438 mm x 1219 mm	3 mm

Thermoforming/Stretch Forming

You can thermoform PLEXIGLAS ® RADIANT to obtain a variety of shapes. If only one side of the sheet is heated, the coated surface should face the heat source. PLEXIGLAS® RADIANT 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 deminished. We therefore advise you to conduct preliminary trials. As with PLEXIGLAS ® XT sheets, the recommended forming temperature is between 150 and 160°C.

Flame Polishing

PLEXIGLAS® RADIANT can be flame-polished under the same conditions as standard acrylic sheets. For best results, flame-polish stacked sheets. 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 PLEXIGLAS® RADIANT sheet with the coated surface on a sheet of standard acrylic for better protection.

Important notes

- The coated surface is protected by a clear masking film. The uncoated surface has blue masking film.
- Scratches can not be polished off the coated surface. Please make sure not to scratch that surface.
- PLEXIGLAS® RADIANT is meant for indoor use. It has only limited resistance to outdoor exposure.
- Store the sheets horizontally on a perfectly flat surface. PLEXIGLAS ® RADIANT should not be stored vertically, nor stored near heat sources.