

Laser Cut and Engraved Acrylics

Acrylic materials are the ultimate material for laser cutting. Edges are polished and without discoloration.¹ No further treatment is required before painting or mounting. Acrylic materials are both dramatic and durable.

Acrylic is available in matte, mirror and other innovative finishes, and can be painted, or silk-screened, with commercially available paints and inks. Acrylic comes in a wide array of colors, both solid and translucent, which offers nearly unlimited design flexibility -- especially when combined with other design options such as LED lighting, or color layering.

Acrylic sheets are available in 48" X 96" X 1/8" (thick). 50" X 100" sheets are also available if necessary. BC Laser Works can cut up to 1/2" thickness though thicknesses greater than 1/4" will require additional fabrication to offset any edge shortcomings. BC Laser Works has a list of excellent fabricators if you cannot do this work internally.

BC Laser Works can score acrylic materials for assembly line use, art work, or with text.

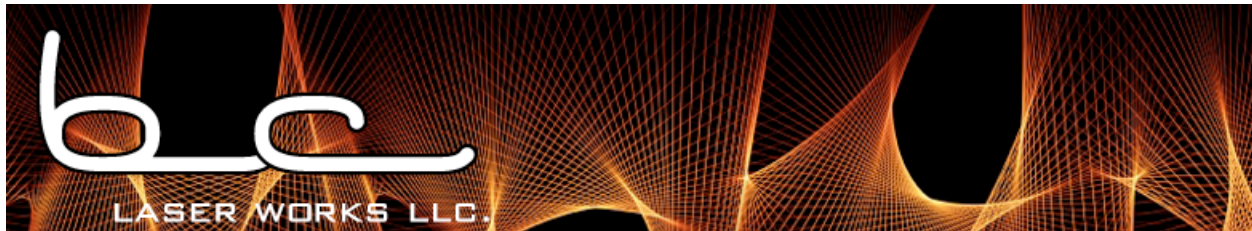
Acrylic Properties and Measurements

There are predominantly two types of Acrylics: Extruded and Cell Cast. Measurements are calculated using the metric scale though BC Laser Works converts them to the non-metric equivalents prevalent in the US. (1/4" is .236-mm, 3/16" is .177-mm, 1/8" is .118-mm and so on.) Extruded plastic can deviate by +/- 10% (thickness) though it usually runs between .226-mm - .230-mm for a .236-mm thickness. Cell Cast on the other hand is more consistent in thickness and therefore more expensive. All colored acrylic is Cell Cast.

Acrylics, while durable, are breakable. Acrylic requires heat to bend, unlike Polycarbonates which are nearly unbreakable and can be bent cold.

Acrylics are less expensive than Polycarbonates, though if you require colored Acrylic, it is cell cast rather than extruded, and about the same price as Polycarbonates.

¹ Pulsation lines might be present after cutting



Recommended Adhesives for Extruded Acrylic

- * Weld-on #3 - Quick set, good bond strength. This is the most popular and easiest to use.
- * Weld-on #5 - Water thin, medium set solvent cement.
- * Weld-on #16 - Fast drying, high strength.
- * Weld-on #40 - Reactive gluing / for joining to other substrates such as polystyrene, cell cast acrylic, PVC butyrate and wood.

Recommended adhesives for Cell Cast

- * Weld-on #3 - Quick set, good bond strength. This is the most popular and easiest to use.
- * Weld-on #4 - Water thin, fast set solvent cement.
- * Weld-on #16- Fast drying, high strength.
- * Weld-on #40- Reactive gluing / for joining to other substrates such as polystyrene, cell cast acrylic, PVC butyrate and wood.

Engraved Acrylic

When engraving Acrylic we typically engrave on the back of the material so you look through the plastic to see the engraving. This creates very compelling awards, business cards, signs and other decorative items. BC Laser Works can engrave photos on acrylic as well as text, logos and other art. Thicker pieces are particularly nice looking.



Helping others design and develop their ideas