



Acrylic Mirror Care Manual





FABBACK Mirrored Acrylic is a strong, lightweight thermoplastic sheet that is designed to be used as a replacement for traditional glass mirror. Its greater impact and break strength makes this an ideal product to be used in situations where there is a higher level of concern for safety. With over 19 different colors available, multiple thicknesses and coatings, FABBACK acrylic mirror has the sheet you need for just about any project.

Product advantages of FABBACK Mirrored Acrylic:

REFLECTIVITY:

Approximately 85-90% over the 400-700 nanometer visual light spectrum.

LIGHTWEIGHT:

Less than one half the weight of glass mirror of the same dimension and thickness

BREAK RESISTANCE:

Superior break and impact resistance when compared to traditional glass mirror. Up to 10 times more break resistant and 17 times greater impact resistance than traditional glass mirror of the same dimension and thickness

HEAT:

Can tolerate continuous heat exposure up to 160 degrees F. Can withstand occasional short-term exposure up to 190 degrees F.

EASILY FABRICATED:

Can be easily cut, routed, & drilled to create custom sizes and shapes for any project. Using the correct blades, cutters, & bits, FABBACK acrylic mirror can be easily fabricated using many common tools.

Handling:

All FABBACK® acrylic mirror sheets are furnished with protective masking on the reflective side of the sheet. Do not slide mirror when transporting and always store acrylic mirror in a clean, dry location with masking left in place until the sheet is ready to use.

Vertical Storage:

If mirror sheets are to be stored or transported on end (vertically), care must be taken to avoid warping. Sheets must stand with an angle no more than 10 degrees from vertical. Care should be taken to make sure the sheets are properly supported. Always store sheets with factory applied masking until ready for use.

Horizontal Storage:

If mirror sheets are to be stored or transported flat (horizontally), care should be taken to avoid warping, sliding and scratching. If different sizes are being stored together, make sure that largest sizes are at the bottom with smaller sizes stacked on top. Be sure to keep debris from settling between sheets, this may cause scratching. Always store material with factory applied masking until ready for use.

Maintenance:

Each sheet is well protected by a durable paint backing and removable masking on the reflective side. Masking should remain in place to protect sheets during the fabrication or installation process. If there is difficulty removing the masking, use aliphatic naphtha, kerosene, or distilled alcohol. Do not use other chemicals or sharp objects to remove masking.

Cleaning:

WASHING:

When washing FABBACK acrylic mirror sheets use mild soap and a damp cloth to wipe the surface using light pressure. For harder to remove items use hexane or kerosene to remove. Avoid window cleaning sprays, kitchen scouring compounds or other chemicals to clean mirror sheets.

POLISHING:

Surface gloss can be maintained by occasionally using a soft cloth and good plastic cleaner or polish. Follow instructions on the container when polishing.

REMOVING SCRATCHES:

Fine scratches maybe removed by hand polishing with a plastic polish/scratch remover/cleaner. Remove all residue and polish with a soft cloth.

Drilling:

FABBACK acrylic mirror can be easily drilled with any commercial power-driven portable drill, drill press, lathe, or automatic multiple-spindle drilling unit.

It is recommended that you use a bit designed specifically for use with plastics. If a plastic drill bit is not available please adhere to the following criteria:

1. Drill tip must have a sharp angle of 60-90 degrees to allow bit to enter and exit sheet easily without chipping.
2. Bit cutting edge must have a rake angle of 0-4 degrees. The flat cutting edge is designed to scrape material rather than gouge it.
3. Bit surface behind the cutting edge is recommended to have clearance angles of 12-15 degrees to allow back relief for reduced metal to plastic contact and heat build up.

When drilling acrylic mirror back the sheet with a durable surface such as plywood. This will allow the bit to continue into the solid material and will decrease the risk of chipping. A slow feed rate should be used when penetrating and exiting the sheet.

Cutting:

SCRIBING & BREAKING:

Method designed to achieve a quick, straight line cut on a single sheet of mirror acrylic. Recommended for sheets with a thickness of 3mm or less. Mark line on sheet to be scored. Using a plastic cutting tool, score the line drawn on sheet multiple times using a straight edge as a guide. Overhang the end of the sheet over the edge of a table and snap the score line with sharp downward pressure.

CIRCULAR/TABLE SAW:

Method designed to achieve quick, straight line cut of multiple sheets of acrylic mirror. A 10" 80 tooth carbide tipped blade is recommended for cutting FABBACK acrylic sheets. Teeth should be triple-chip design, where every other tooth has a beveled cutting edge to help clear away saw chips. Make sure to cut using a smooth even feed rate and always leave protective masking in place while cutting. Uneven feed rates and removing masking before cutting may cause gumming/chipping of sheet and scratching of surface.

SABER SAW:

Generally used in applications that require multiple changes in direction while cutting. Use clamps to hold sheets in place to reduce vibrations that may lead to chipping while cutting. Set speed to "full" and keep feed speed even when cutting acrylic mirror sheets. Use a blade with at least 14 teeth per inch.

JIG SAW:

Used primarily for inside and intricate cuts. Since the stroke is short, the blade can heat up quickly causing the sheet to soften and the blade to adhere to the sheet. To avoid this a use fast even feed rate. Use blades with at least 14 teeth per inch.

BAND SAW:

Used for cutting curved edges and trimming of sheets. Blades for band saws should have at least 10 teeth per inch.

It is recommended that a cool air mist be in contact with the blades of all cutting devices before and during penetration of plastic.



General info:

CHEMICAL RESISTANCE:

Like all plastic materials, FABBACK acrylic mirror will react when exposed to many chemicals. Below is a partial list of chemicals known to react with these sheets.

BENZENE	ETHYL ALCOHOL
LACQUER THINNERS	KETONES
TOLUENE	METHYL ALCOHOL
CARBON TETRACHLORIDE	ETHERS
ESTERS	

WEATHER/MOISTURE RESISTANCE:

Acrylic mirror products are not recommended for outdoor use and window glazing applications. If used outdoors, seal perimeter with silicone sealant to protect against moisture and protect mirror backing. It is also recommended that acrylic mirror is not used in applications such as shower doors and in areas of extreme humidity. These applications can cause the mirror to expand and contract and can possibly damage the sheet.

FLAMMABILITY:

Precautions normally used to protect wood and other combustibles from flame and high heat should be observed with acrylic mirror.

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