The effects of glass volume (thickness) on shape

Before Firing

A Tack Fuse & Rounded Firing is used when you want to maintain the shape of your design. You may shape your glass on the grinder or cut it into a pattern. In this case a tack-round fusing will fuse your glass pieces together, but will not distort their shape.

A Full Fuse & Gathered Firing is used when you want the glass to collect or gather into itself. The layers merge and gather/shrink into itself to form a bead or rounded shape for small earrings, bracelets, and piercing-type jewelry.

This is great for dichroic glass when it is the bottom layer, because it distorts the dichroic film resulting in a fractured and very multi-reflected effect.

Dichroic & Iridescent Glass

Two special kinds of glasses are Dichroic and Iridescent. Both are regular fusing glass with the addition of a very thin metal-like coating on one side. Your design can change very significantly depending where you place the side with the coating. Both of these glass types also come in clear and on black. If the film is on black glass then you can only use it as the bottom layer of your design since you cannot see through the black opalescent. For the clear type glass there are three options.

1. Placing the side with the film on the top layer of your piece (film facing out) will vary a lot depending on the type of dicro and irid glass you choose. It is best to do a small test to see if you like the results.

2. Placing the film side on the bottom layer facing down provides your piece with a reflective background which can be nice. The film also picks up some of the texture of the kiln self adding variation to your design.

3. Placing it in the middle layers of your piece is the most common. In this case

One thing to avoid is placing the sides with the film face to face. The two layers will not fuse properly because the film is preventing the glass from touching and consequently the glass cannot fuse together
**Designing Your Glass Art**

**What Works**

- **Dicro on top layer** - When the dicro is on the top layer facing the outside the results vary by the type of dichroic glass. It could turn out to be a soft sheen or just the opposite a very rough surface. More typically dicro is sandwiched in the middle the resulting in a more reflective clear and sparkled piece.

- **Dicro on bottom layer** - You can put your dicro film side done on the kiln self or sandwiched in the middle. The effect is very different and also varies by the type of dicro glass. Not all dicro coatings act the same way. Create a small test of the glasses you are interested in before using them in your design.

- **Random pieces on top** - You can add small bits of colored or dirco glass to the top layer. Keep the bits small (around 1/8 inch) and keep them away from the edges to prevent distortion of the outside edge of your glass shape.

- **Random pieces on bottom** - When adding many cut pieces to the bottom layer the most predictable results will be if finale shape of the bottom layer comes close to matching the shape of the top layer.

- **Iridescent Glass on top of dichro** - This gives a nice soft sheen to the dichroic when the iridescent layer is on the top surface. Otherwise dichro on the top surface can seem too glitzy for some people.

- **Colored transparent glass underneath and on top of dichro** - The dicro layer can become multicolored by layering transparent colored glass on top. You can use strips, chunks, or glass powder to alter and vary the dichro color underneath, giving it greater variety of color. Additionally, if you are using transparent dichro (without a black back), then you can also use colors under the dichro to create more color changes.

- **Add a colorful metallic look with mica dust and flakes** - There are several colors of mica dust provided. The dust can be painted on your glass by dipping a brush into glue and then dipping the wet brush into the dust. Paint the dust on the glass so that it will be on the inside of the design. That is, not on the top layer, and stay away from the edges as you paint. Mica dust prevents glass from sticking to other layers. Just use it as an accent and do not paint the whole piece of glass and avoid the other edges. Use mica flakes on a dark piece of glass for a real rich and natural look.

- **Clear coat & wrapping** - If using a single clear piece on the top glass a good design is to make the top layer 1/16 larger in all dimensions than the bottom layer. This creates a nicely rounded and finished looking piece. The clear glass on top also creates a sense of depth.

- **Plan your finding** - At the end of the class you will choose findings for your jewelry. It is often beneficial to pick out findings before making your pieces. You can then design around the finding. You might also want to make gifts like a wine stopper. If you don’t review the available hardware and finding you may miss the opportunity to make a very nice gift.
What Does Not Work

- **Dicro on Dicro** - The dichroic coating on glass is a very thin film on one surface and covers the whole surface. Consequently if you place two pieces of dicro glass together with the film sides touching they will not fuse together.

- **Too many layers & too large** - The overall thickness and size of your piece should be no thicker that 1/4 inch and no larger that 1 by 2 inches. If you make your piece too thick and too large it will have a good chance of cracking.

- **Dicro on Iridescent Glass** - The same is true as the above for iridescent glass.

- **Avoid mixing Glass Powders** - If using more than one glass powder avoid mixing them together. You might get brown instead of the color you imagined.

- **Pendants with a channel** - Avoid clear glass as your top layer, because you will see the channel and the chain through it. This also is true of pendants that will use a metal finding. You will see the finding if the top of the pendant is composed of all clear glass.

- **Random pieces on top** - If you add random pieces to the top layer and they are too big or you add too many the added volume of glass will distort the shape of your project. This could be an interesting design element, but not if you want the final shape to be specific.
2 Layer Dichroic Fused Pendant

Dichroic Post Earrings

Wire Bending
Etching the Dichro Layer

Clear Frit on Dicro

Create a Channel

Ceramic Paper Cutouts

Stacked Layers
1) cut 3 squares of dichroic or other glass.
2) cut 3 squares of clear glass 1/8 larger in both width and height.
3) place in kiln with clear on top.

Frit, Glass Powder & Stringer

Simple Two Piece Designs