



## CBS DICHROIC GLASS

**WHAT IS DICHROIC GLASS?** Dichroic Glass is a multi layer coating placed on glass by using a highly technical vacuum deposition process. Quartz Crystal and Metal Oxides are Vaporized with an electron beam gun in an airless vacuum chamber and the vapour then floats upward and attaches then condenses on the surface of the glass in the form of a crystal structure. Our colours have as many as 30 layers of these materials yet the thickness of the total coating is approximately 35 millionths of an inch. The coating that is created is very similar to a gemstone and by careful control in thickness, different colours are obtained. Thus, all our coatings are created using the same exact materials. Originally created for the Aerospace industry, Dichroic Glass is now made available to the artist community. The main characteristic of Dichroic Glass is that it has a transmitted colour and a completely different reflective colour. Furthermore, these two colours shift depending on angle of view. With the play of light together with its vibrant colour, Dichroic Glass is a prime tool used to add interest to any piece of work or project.

**PUT OUR GLASS IN THE FIRE** CBS Dichroic Coatings are specifically designed to be hot worked. We coat our glass for use in: Glass Blowing, Flameworking, Fusing, Slumping, Beadmaking, and any other technique that involves the manipulation of glass with extreme heat.

**STANDARD VERSUS PREMIUM COLORS** Standard and Premium colours refer to pricing only. Our premium colours have twice as many layers than our standard colours and thus, take more time to produce. Therefore, premium colours are a little more expensive. Our Specialty Colours and Patterns are "Standard" as far as pricing, but anything that requires tooling to create (i.e.: patterns) are more expensive.

**COATED FRIT VERSUS BROKEN SHEETS** The Dichroic Coated Frit that we currently offer is frit that we have purchased specifically to be coated with a Dichroic Coating. This product is not broken up sheets of glass, but actually coated frit. After extensive research CBS has designed a proprietary process that allows the frit to be coated on approximately 80 Percent of the surface area of the glass. Thus, one 8-ounce jar of Dichroic Coated Frit has the equivalent coated surface area of more than one full sheet of flat glass. Due to this high ratio of Coating versus Glass, the Dichroic Frit responds very differently under heating/hotworking conditions,... a must try for artists looking for a fresh or different look to their work.

**FUSERS** Artists specializing in fusing techniques are our foundation. CBS coating is the finest quality so many serious fusers choose it to support their needs. As the Dichroic Coating does not change the COE or integrity of the glass in any way, please refer to the manufacture of the glass that you are using for recommended fusing schedules.

**CUTTING DICHROIC GLASS** The Dichroic Coating does not affect the integrity of the glass in any way. We only recommend that you cut/score the glass on the "UNCOATED" side of the glass. This will produce a much smoother and cleaner break.

**SCRATCHING** The Dichroic surface is stronger than the glass that it has been placed onto. The final layer that we adhere to the glass is Quartz Crystal which is almost as strong as an actual diamond. But, because it is so extremely thin, if something can scratch the glass, it will usually also scratch the coating. We do not recommend using abrasives such as steel wool, etc. Also, when grinding the edge of the glass, the coating will chip off along with the glass that is also being chipped off. We recommend using a fine grit grinding wheel when trying to keep chipping to a minimum.

**TRANSMISSION VERSUS REFLECTION** The "Transmitted Colour" is the colour you see in a clear piece of glass when you can actually see through the glass. The "Reflected Colour" is the colour you see in a clear or opaque piece of glass when the light bounces off of the surface of the glass. Most of our colours are listed with its Transmission Colours then its Reflections Colour. For example "Blue/Gold" will be Blue in transmission and Gold in reflection. If we coated a black/opaque sheet with Blue/Gold, you would only see its reflection of Gold (Yet, it is still called Blue/Gold).

**MATERIALS USED FOR COATING** We melt Quartz Crystal and Metal Oxides to produce our quality coatings. Only the highest and purest quality materials are used for our processes. These materials are vaporized with an electron beam gun, and the vapour then attaches and condenses onto the surface of the glass, forming a crystal structure comprised of as many as 30 layers.

**WE HAVE PATTERNS** Dichroic patterns have become increasingly popular. There are many types of patterns including: Squares, Dots, Marquis, Brick, Honeycomb, Balloons, Boxes, and a variety of Rainbows and other configurations of colours. Unlike an etched or photo resist pattern, ours are completed during the coating process. Therefore each of our patterns have colourful rainbows around each small shape.