



Austin Thin Films, Inc. was founded in 1992 by thin film coatings expert Glenn Brown in order to fill the growing need and demand for dichroic coated art glass. Glenn has 30 years experience in thin film vacuum deposition, and optical filter manufacture. Austin Thin Films, Inc. is located in beautiful Austin, Texas. Providing a wide selection of ready to coat stock glass and offering a limitless selection of colors has been our greatest achievement. The quality of the DichroMagic[®] coating, and the ultimate service of Austin Thin Films is unmatched in the art glass industry today. Distribution is worldwide.

We are celebrating 25 years in business and more than 25000 production runs. We have made thousands of customers happy by supplying a dichroic coating that is perfect for a variety of applications including stained glass, fused jewelry, tiles, lampworked beads, slumped bowls, blown paperweights and cast sculpture, DichroMagic[®] is THE CHOICE for professionals and also perfect for beginners.

The most versatile coating available. DichroMagic[®] is designed to not only withstand fusing and firing temperatures, but also work well with stained glass and architectural applications.

WHAT IS DICHROIC GLASS?

Dichroic is defined in the dictionary as "The property of a surface of reflecting light of one color and transmitting light of other colors." Transmitted colors are what you see when you would look through a piece of DichroMagic[®] glass. Reflected colors are the colors you see when you hold the glass at an angle, and will be the opposite color of the transmission.

Dichroic coatings are produced by vacuum depositing multiple thin layers of exotic materials onto a glass substrate. This creates an optical filter that can selectively reflect and transmit wavelengths of light. A vacuum chamber is needed in order to produce a pure environment for depositing the thin film materials. The vacuum produced is similar to that of outer space. The proprietary evaporants are vaporized in a crucible located in the bottom of the vacuum chamber, by a high voltage electron beam onto the rotating glass above. The glass is also rotated in the chamber through this vaporization process in order to deposit uniform coatings on the glass. Due to the difficult coating process there can be slight differences in color throughout the sheet, or from one sheet to the next.

WHY USE DichroMagic® DICHROIC GLASS?

DichroMagic® has many uses from stained glass, fused jewelry, tiles, slumped bowls, lamp worked beads, blown paperweights and vessels to cast sculpture. DichroMagic® dichroic glass is a state of the art thin film combining the science of vacuum deposition and optical filters with the art of glass. DichroMagic® dichroic is designed to remain highly stable at fusing and glassblowing temperatures while retaining the beautiful optical properties and colors.

This endurance is due to the state of the art equipment installed in our optical coating laboratory. The DichroMagic® coating is enhanced with a tough overcoat giving it high temperature resistance and scratch resistance. Due to its unique properties, DichroMagic® is the professionals' choice for dichroic glass art. The only limitation is your own imagination.

USAGE TIPS FOR DICHROMAGIC® DICHROIC GLASS

Color Shifts In Fused And Hot Glass

After fusing or lampworking dichroic glass, the color will shift towards the left on the visible color spectrum, depending on the thickness of the dichroic coating, the amount of time and temperature fired for a specific kiln, the number of firings, the type of base glass, and the exact application of the DichroMagic® in the project. Always choose colors that will have room to shift towards your desired resulting color. Also, individual kilns fire differently and it is important to test color shifts before entering into large projects. The color codes for DichroMagic® are arranged in order from the thinnest (LY) to the thickest (RR). After selecting the correct color needed for your final product, go to the next thickest color. For example, if you desire a blue transmit/yellow reflect, (BL), choose a light blue transmit/gold reflect (LB). Upon cooling, the color will shift from light blue to blue. Thinner colors such as LY, YE, and AM may shift beyond the desired results if your process is very hot. We recommend fusing a test palette using the color sample set to see how much firing temperature will affect the color shift. The best way to see what the color shift should be is to view the dichroic at a 45-degree angle. That color whether it is from the reflection or the transmission will be the shifted color.

FUSED GLASS

Upon firing, DichroMagic® produces a unique crazing pattern depending on the color, glass texture, glass thickness, coating color, and fusing technique. The dichroic coating will fuse readily to uncoated glass. In general, two dichroic layers will not fuse directly to each other.

HOT GLASS / OFF-HAND / LAMPWORKING

For hot glass processes such as blown, lamp work, and cast glass, DichroMagic® should be

used with care. At extended temperatures above 1600 degrees F dichroic coatings can oxidize rapidly causing drastic shifts in color. We suggest at temperatures at or above 2000 degrees F the glass be applied with the dichroic layer away from the flame. By gathering or fusing a layer of clear over the coating, the dichroic can be encased and protected from destruction. When glass is blown and stretched, the dichroic coating will be fractured into smaller pieces. Bead making using the dichroic-coated side out of clear glass DichroMagic® works well provided you do it with care.

STAINED GLASS

DichroMagic® with stained glass is a fantastic way to illuminate an area with pure brilliant color. The thin film can be scratched or destroyed by corrosive flux, patina, and glazing materials, so the dichroic layer should be protected. To temporarily protect the glass, a resist such as contact paper will work. It can be permanently protected by fusing or gluing (laminating) clear glass on top. A clear spray or brush overcoat of acrylic coating can be applied to seal it in, but be aware that overcoats will cause color shifts.

Do Not Soak DichroMagic in water. The acidity of the water etches the coating off.



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