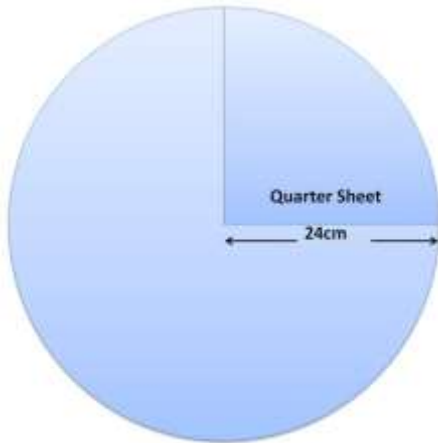


Dichroic Glass... Frequently Asked Questions

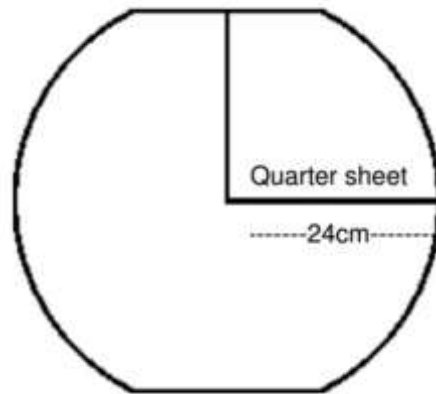


WHAT SIZE IS A QUARTER SHEET OF DICHRIC GLASS?

Dichroic Glass from CBS is coated in circles 48cm in diameter, a quarter sheet is a segment of that circle. Some sheets (usually the textures) will have an edge removed as the circle is cut from an original sheet which is less than 48cm wide. A full $\frac{1}{4}$ sheet of CBS dichroic approximately 450 Sq cm, therefore the equivalent area of 4 $\frac{1}{2}$ squares 10 x 10 cm.



CBS Full Sheet



CBS Full Sheet with edge removed

WHAT IS DICHRIC GLASS?

Dichroic Glass is standard art glass with a multi-layer coating placed on one side. The main characteristic of Dichroic Glass is that it has a transmitted colour (where light passes through the glass) and a completely different reflective colour (where light reflects off the glass). 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. With over 300 Dichroic products available from Warm Glass UK, artists have unlimited freedom of expression.

HOW IS DICHRIC GLASS MADE?

The multi-layer coating is placed on the glass using a highly technical vacuum deposition process. Quartz Crystal and Metal Oxides are vaporised onto the surface of the glass in the form of a crystal structure. Dichroic 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 dichroic coatings are created using the same exact materials. Originally created for the Aerospace industry, Dichroic Glass is now made available to the artist community by Warm Glass UK in association with Coatings by Sandberg (CBS).

WHAT CAN DICHRIC GLASS BE USED FOR?

Warm Glass UK supplies dichroic glass manufactured by Coatings by Sandberg (CBS). CBS Dichroic Coatings are specifically designed to be hot worked. e.g. Glass blowing, Flame working, Kiln-forming, Slumping, Bead making, and any other technique that involves the manipulation of glass with extreme heat. There is an ever growing demand for the use of Dichroic Glass in architecture. Its resilience to weather and never-fading colours are prime material to enhance office buildings, customise homes, walkways, fountains, skylights, walls, lighting fixtures and more.

ARE THERE DIFFERENT QUALITIES OF DICHROIC GLASS?

CBS Dichroic is excellent quality, which is why we stock it. If you have been disappointed in the past with lower quality Dichroic Glass which foils, creeps and burns out, then try CBS Dichroic. CBS is a family owned company and Jerry Sandberg, its founder, has been producing and supplying Dichroic glass to the art community for well over 25 years. We often send out free samples in customer orders so that you can try it for yourself.

WHY DO THE COLOURS AND FINISHES VARY?

In most cases, dichroic glass is stable and fires in a similar way each time. However, because the colour is created by the separation of light waves by 30 layers of metal oxide coating, there can be variations in both colour and texture of fired pieces. Variations are most noticeable when the coating crystallises differently on the surface of the glass, causing it to be either very smooth or very rough. CBS dichroic usually crystallises to a matt finish. We cannot control or predict minor changes in the finish of the dichroic surface, but we are happy to replace any dichroic you are not satisfied with.

WHAT DO THE COLOUR NAMES MEAN?

Each colour has a Transmission colour (this is the colour you can actually see through the glass if the coating is on clear glass) and a Reflected colour (this is the colour you see when the light bounces off of the surface of the glass). For example "Blue/Gold" will be Blue in transmission and Gold in reflection. If a black/opaque sheet is Blue/Gold, you would only see its reflection of Gold (Yet, it is still called Blue/Gold). The reflected dichroic colours shift towards the cool end of the spectrum when they are fired. e.g. a Blue/Gold shifts to a lime green; the degree of shift depends on the kiln firing.

HOW CAN I TELL WHICH IS THE COATED SIDE?

The coated side can be seen when you hold the glass at an angle to the light, if you see the colour run to the edge, then you are looking at the coated side, if you can see the depth of the glass with the coating below, you are looking at the non-coated side. Coatings should not normally be fused facing each other but interesting effects can be produced by using dichroic face up, covered, or stacked in multiple layers.

WHAT ARE STANDARD AND PREMIUM COLOURS?

Standard and Premium colours refer to pricing only. Premium colours have twice as many layers than standard colours and thus, take more time to produce. Therefore, premium colours are a little more expensive.

WHAT IS DICHROIC FRIT?

Warm Glass UK supplies Dichroic Coated Frit in 90 COE. 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. 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.

DO I NEED SPECIAL FUSING SCHEDULES?

No. You can use fusing schedules for standard Bullseye Glass. The Dichroic Coating does not change the CoE or integrity of the glass in any way.

IS THERE A SPECIAL WAY OF 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 substrate. This will produce a much smoother and cleaner break.

WILL THE DICHROIC SCRATCH?

Raw (unfired) dichroic can be scratched, as the coating is very thin. Fused dichroic is very strong and will not easily scratch.

WHY ARE THE CBS SHEETS ROUND?

CBS Dichroic sheets are round to provide a constant uniform colour across the surface of the sheet. 1/4 sheets are 1/4 circles but have 8% more glass than a square 200mm x 200mm square.

To see our range of dichroic glass, visit the Dichroic Glass section of our website.

www.warm-glass.co.uk