



EZ Fire Enamels

1380°F – 1650°F
750°C – 900°C

Introducing the new Fuse Master EZ Fire High Temperature Enamels.

This is an exciting new collection of bright colors that are easy to fire. They do not require any special heating in order to get rich strong colors. Just pop them in the kiln and fire. You don't have to worry about them turning brown if they aren't vented correctly. They have a nice mix of reds, oranges and yellows which are hard to find these days. Because they can handle temperatures up to 1650F they can be used for full fuse firings, lamp working and glass blowing without burning out. EZ Fire Enamels are a very fine grind so they can be brushed, silkscreen printed, stippled or air brushed onto a base glass. One ounce of enamel will cover approximately 3.7 square feet of glass so they are an inexpensive alternative to sheet glass.

These durable opaque enamels are actually richly colored glass powders. The powdered enamels can be mixed with most any type of binder to accommodate a wide range of applications. We recommend the following binders:

WATER BASE BINDERS

Fuse Master Water Friendly Medium, Gum Arabic, Fuse Master Silk Screen Medium, Fuse Master Air Brush Medium, Fuse Master Best Choice Paint's Medium, Flexi-Glass and Liquid Stringer Medium.

OIL BASE BINDERS

Clove Oil, Squeegee Oil, Lavender Oil

GENERAL CHARACTERISTICS

- Fuse Master EZ Fire Enamels can be used on a wide range of base glasses including float or window glass, Uroboros, Bullseye, Blenko, Spectrum, Wissmach, Armstrong, Chicago Art Glass Youghioghny, Kokomo and Moretti.

- Regardless of which of the many methods of application you decide to use, keep in mind that these enamel colors can be accidentally shifted by exposing them to contamination. The most common forms of contamination come from a) water with a heavy mineral content, b) air born dust, c) dirt or chemical films on glass. (Firing on the back or tin side of window glass may cause a yellowing of some of the colors. A short wave U.V. light can be used to identify the tin side.)

- These enamels need a minimum thickness. If they appear to have burned out, they were probably not applied thick enough.

- WARNING -
These enamels are not intended for food bearing surfaces. They do contain low levels of lead and cadmium. When fired those levels are well below what is permissible, but it is still best to not use them for food. Wear an approved dust mask while working with any glass partials. Keep your work area clean. Do not smoke, eat or drink while working with the enamels.

- The enamels need to be taken to at least 1380F for 10 minutes to mature, so they are usually used on the fuse firing.



If they are too thick, cracking can occur.

- The enamels can also be placed between two layers of glass and then fired but enamels between layers tend to form bubble patterns as opposed to even layers of color. It is best to fire them first without a top layer, then add a clear top on the second firing.

- The enamels will stick to kiln wash or ceramic fiber products if they come in contact with either of these products. It is recommended that the enamels are fired "up" to avoid touching the kiln shelf or mold.

METHODS OF APPLICATION

Dry Sifting: Place a stencil onto the glass to be decorated and sift the enamels through a screen. For greater durability before firing, first cover the base glass with a light coating of medium, then place the stencil onto the glass and sift the enamels. This is a good technique to use for repetitive designs, gradations of color and transitions from one color to another.



Because they are such fine particles, they will sift better if mixed with compatible powder.

Mix and Sift 1/8th Teaspoon EZ Fire Enamels - 1 Tablespoon Compatible Powder

Air Brushing: Mix 2 teaspoon enamel an equal amount Fuse Master Air Brush Medium and air brush onto glass. Keep the solution stirred to avoid clogging the air brush. (Allow to dry between coats.) One technique is to use a small space heater to warm the back side of a piece the glass placed at a 45 degree angle to minimize running and speed drying.

Painting: Fuse Master EZ Fire Enamels can be applied using a variety of painting methods such as tracing, stippling, flood coating and as a color wash. The powder can be mixed into a liquid by adding any of the binders listed.

The exact ratio of powder, binder and thinner will vary so it is best to run some tests before embarking on a project. One approach is to start by finding a clean piece of glass to use as a mixing palette, apply a 1/2 teaspoon enamel. Add 4 drops "Water Friendly Medium" (or other medium) and mix to a creamy consistency while adding 10 - 12 drops of water from an eye dropper. Continue to add water during the painting process to replace moisture lost to evaporation.



Combining equal parts EZ Enamel and Best Choice Painter's Medium will produce a thick and creamy mix that ideal for brushing.

Some variations you might try include:

*Use either of the above mixes and a fan or applicator brush to cover an area with enamels. Allow to dry. Scrape away a design



with a sharpened wooden dowel. If the paint does not scrape away easily, try decreasing the amount of "Water Friendly Medium".

*Add extra water to puddle on with a brush to create a "water color" look.

*Mix thicker to stipple a texture or to brush with short strokes.

Screen Printing: Mixing the enamels with Fuse Master Silk Screen Medium will produce an excellent pigment for direct silk screening onto glass. Use a decal medium if you are producing fire-on decals.

TO FIRE

Be sure the enamels are completely dry before firing or they will blister. Place the glass on a prepared kiln shelf or mold. Set in a kiln and fire slowly until the enamels look wet and shiny, approximately 1380F to 1475F. Hold at maturing temperature at least 10 minutes. No Special venting is required although opening the kiln slightly (1/4") during the heating cycle does help any firing. Some colors may fire to a matte finish.

When working with this or any other product for the first time, test firings are commended as a way to study subtle variations of performance. Keep good firing records so that successes can be duplicated. Enjoy.

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