

# Stained Glass 101

hands-on info for the hobbyist

by Brian McMillan

## Introduction to Painting on Glass

For hundreds of years, using painter's stain on glass has allowed craftspersons the option of adding more detail to a variety of projects—from complex facial features, foliage in a landscape, or something as simple as an eye detail for a duck suncatcher. Glass stains come in a limited range of colors, moving from black to grey/greens, including some browns and flesh tones. These stains come in powder form and can contain lead and other toxic chemicals, but there are lead-free versions available.

The powder is mixed with powdered gum arabic and water. The paint is then applied to colored glass to create trace lines. The painted piece of glass is fired in a kiln to around 1175°F (following the manufacturer's instructions). Once fired, the paint is permanently bonded to the glass. After the initial firing, you can apply another layer of paint to develop shading. In this article, we will cover mixing and applying a trace line.

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## Mixing the Stains

The quantity of paint that you choose to mix will depend on

how much painting you want to do. A little paint goes a long way. Start with about a teaspoon of paint and pile it onto a sandblasted piece of glass. The sandblasted glass provides a "tooth" and aids in mixing. With a palette knife, flatten the paint to a thickness of 1/8". Gently sprinkle a small amount of gum arabic on the surface of the paint.

The quantity of gum arabic is often referred to as a light snow covering. Gum arabic gives the paint body, so it is not too hard, or too soft, to work with. Paint that is just the right consistency will be easy to scratch with a sharpened paint brush handle (before it has been fired). Too much gum arabic (1) will cause the paint to be tough, and it will chip when scratched. Too little gum arabic (2) will make the paint too soft; it will not have good density and will be very easy to remove.

Once the dry stain and gum arabic are properly mixed together, use the palette knife to create

a small well in the center. Using an eye dropper, add water a few drops at a time.

Mix the paint to a smooth consistency similar to latex paint. The more time you spend mixing the paint, the nicer the paint will flow onto the glass.



## Application

Apply the mixed paint using a tracing brush (a brush with long natural bristles, which comes to a point). Load the paint onto the brush. A fluid line will be created by touching the brush onto the glass. Using your design as a guide, move in one steady motion to create your trace line. It will take some practice to achieve a nice consistent line. The good news is that if you make a mistake, you can correct it very easily by "erasing" (scratching) away any excess or unwanted paint from the glass using a wood skewer, or the end of a



paint brush sharpened using a pencil sharpener. In the worst case, you can remove the paint from the glass with water and start again.

The initial trace line gives the design a frame not unlike the lead lines of leaded stained glass, but without as much labor (less cutting, grinding and copper foiling).

## Firing

Paint stains must be fired in a kiln. I prefer to fire them at as low a temperature as possible (in the 1160° to 1200°F range). This will give the paint a nice sheen and will not affect the color or texture of your glass.



Next time (SGN #82), we'll cover some shading and stippling techniques.

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