

Mike Jackson, Moore, Oklahoma, explains his method of applying a unique background

Step by step: The smalt background

by Mike Jackson

If you have been in the sign business for a few years, you have probably heard of a substance

called smalt. In years past, it was used to decorate backgrounds on special signs, and sometimes to

cover imperfections in the background.

The most common effect was to use a black smalt background to highlight gold-leaf lettering. If properly done, it was supposed to outlast a painted surface many times over, and the same was true for the gold leaf. Putting the two processes on the same sign was considered "top of the line". If you have ever heard the expression "putting on the smalt" or "he really smalted it up", you now know where they came from.

Types of smalt

There are basically two kinds of smalt. Glass smalt are coarse ground colored glass, approximately the consistency of fine aquarium gravel. Sand smalt is colored sand. Both came in a variety of colors. Black, of course, was most popular. I have seen red, green, and blue. Some of the books I researched on the subject mentioned other colors, including maroon. The book, *Atkinson's Sign*



1. The marbling was done using Carl Rohrs' technique (see page 42 of this issue). Background was masked so that border and oval could be coated with light gray base.



2. Removal of the masking leaves a finished border and oval panel with background ready for next step.



3. After pouncing the pattern, Darla applies gold size to the lettering



4. Immediately after gilding, the first word on the sign looks like this.

Painting, even tells how to make your own colored smalt.

A quick run-down of the application is in order. Remember, there are many ways to do it. A sign background is prepared and coated with blockout white. I like to lightly sand the blockout when dry, especially if gold leaf is to be applied later. The lettering is gilded and sized with either quick or slow gold size. Letter slightly outside the pattern lines. When at the proper tack, gild and clean off the excess gold as normal. This first step could be done with lettering enamel if a gold leaf letter is not required.

Now cut-in a thin outline around the lettering using paint the same color as the smalt. Japan colors work well for this. They dry without a sheen and do not detract from the gold or the smalt. This outline acts as a barrier to the rough texture of the background. Don't make it too wide—about $\frac{1}{8}$ in. or so for glass smalt, even thinner for sand. Let the outline

dry, otherwise, smalt may stick to the outline and distort the edges of the lettering—which is the very thing this step is designed to avoid.

Choosing a binder

Now comes the most current problem with the use of this process—the binder to hold the smalt to the background. I found at least a dozen books with references to smalt. The most accessible is *Gold Leaf Techniques*. The one common denominator in each book is the use of white lead to thicken the mixture. This is a problem as white lead is illegal. A new binding agent is needed.

Keith Knecht told me of a product called *Estes' Hold Fast Oil*. It is thick, clear, and apparently tough. I mixed japan lampblack with it and thinned it to a thick working consistency with linseed oil. It works well if you can find it. The can I found, though, looked very old, so another source is in order.

The basic requirements are sim-

ple. First, it must be tough and able to be mixed with various colors. Second, it needs to dry slowly enough to allow time for application of a reasonable amount of smalt. Third, it must be thick enough to accept and hold a solid layer of smalt. One of the paint manufacturers recommended letting a can of clear overcoat stand a few days with the lid off until it thickens to a desired consistency. I have tried screen-printing inks mixed with varnish and linseed oil, and it worked on a few test samples. Try out your own recipe! Thick lettering enamel works well for the sand smalt.

Once the binder is mixed, paint it on the remaining background as smooth as possible using a soft brush. This is even more critical on sand smalt since irregularities in the binder may be visible on the finished product. If the project is large, work in sections about two-feet square at a time. Leave a wet edge by not pouring smalt on the last four to six inches of



5. The lettering is gilded and burnished, and both panel and border are outlined.



6. Next, the lettering must be outlined with japan black to insure a clean edge on the letters.



7. Darla flows on a thick coat of the binder which will hold the smalt.



8. Once the background is coated with the binder, it is ready for the smalt.

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the previous section. Work as fast as possible without a lot of interruptions.

Shake on the smalts

When the background is covered completely with the binder, the smalts are applied. I just sprinkled the smalt out of a paper cup. Some books recommend punching holes in the bottom of a can and sprinkling it from about six feet while standing on a ladder. If time permits, let the sign lay overnight with a layer of 1/4-in. thick smalts covering the entire surface.

The next step is easy and exciting! Put a paper or cloth under the sign. Quickly turn the panel over

and lightly tap it to free any loose particles. Any small pieces overlapping into the letters can be carefully knocked off. It takes a few days for everything to dry completely. Be careful with the panel, as scratches are hard to repair.

So much for the basics. Think of the possibilities! Routed letters can be smalted. Cut-out letters, borders, edges, and ornaments can be smalted. I read about an effect in a book called *The Expert Sign Painter* by Ashmund Kelly, which I want to try soon. He suggests painting a letter using regular lettering paint, and while still wet, sprinkle sand on it and let it dry. Size over the letter with quick size,

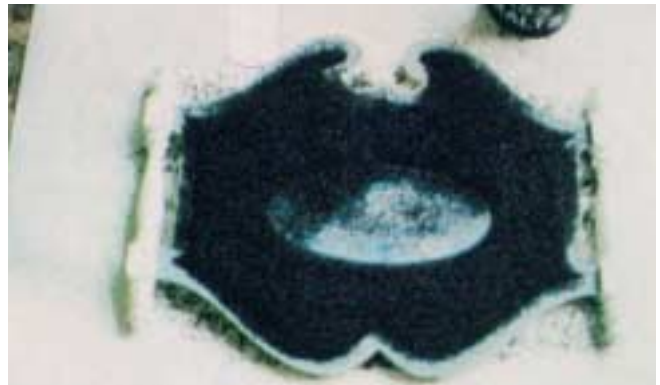
and apply gold leaf. The book then says to cut-in the letters with a nice dark color. Sounds interesting!

Remember also that the textured surface doesn't have to be smalt, just sand or glass. Try bird gravel, ground flint, glitter, ground acrylic, or any similar substance. The sky and your imagination are the limit.

Special thanks to Steven Parrish, Earl Steigemeier, George Seelander, and all of my Letterhead buddies for the additional information for this article. □



9. A generous layer of smalt, about 1/4-in thick, is applied to the wet binder.



10. After covering with smalt, allow the binder to dry overnight.



11. When dry, turn the panel over so that all loose particles fall off. The smalt background is finished.



12. The graphic is added, and the completed sign is ready for installation.

*A few more details on the smalt process,
plus an interesting variation*

More on smalt background

by Mike Jackson

Since writing the article on smalt' backgrounds in *SignCraft* (Nov/Dec 1985), I have received several calls from helpful craftspersons, and I have tried a few new products. As stated in the first article, there isn't just one way to do it—you only need to find one that fits your needs and supplies.

The binder

White lead may still be found in places, but it doesn't seem to be necessary anymore. I got the "favorite formulas" from several veteran smalters and they are basically the same: one-third spar varnish, one-third linseed oil, and one-third pigment. The pigment choices vary a little, but are all blended to match the color smalts to be used. Japan colors dry a little too quick for some. Enamel-base screen-printing inks work well and have a thicker consistency than lettering enamels. Lettering enam-

el works and is readily available in most sign shops. Refined lamp-black is sometimes recommended.

Be sure to get a good, thick layer of the binder down on the panel before applying the smalts. You probably won't be able to apply "too much" binder with a brush. A heavier layer allows for better bonding of the smaltz particles to the background.

The smalt

As for the smalts itself, check with your local sign supplier. Black sand and glass are still available and they will surely stock them if there is enough demand. If not, I have seen smalts in some of the major supplier's catalogues.

Since the last article, I browsed through the local hobby supply store. Have you seen clear glass containers filled with colored sand, decorated with patterns and landscape scenes? They sell the

sand in small bags in many different colors. The only problem with them is that they are dyed with non-toxic dyes and the color is not very concentrated. The colored sand looks a little bleached out to me, but, it may work for certain jobs.

Also in the hobby store I found a lot of very nice and usable materials in the toy train landscaping department. I don't know how colorfast the materials are, but we tried a few of the brown "ballast" materials and the sample looked great! There were several colors and sizes of grey which would also work well in the correct places.

I got the address off the packages of both types of materials and am trying to get the manufacturers to produce a high quality dyed sand in deep indigo blue, dark green, and maroon. Interest from others in the sign trade may persuade a few companies to manufacture exclusively for us. Don't hesitate to call such manufacturers, and always keep an eye open for other possibilities. If you find something be sure to write *SignCraft*.

Other effects

At the end of the last article, I mentioned that I read of a technique using sand smalts as a texture for a surface-gilded letter. We tried it and the results are outstanding. The *SignCraft* logo shown here was done this way. Step one is to draw the design on the background with any normal procedure—pencil, Stabilo, pounce pattern, etc. Step two is to letter the center of the letters with ordinary lettering enamel, but leave about 1/8 inch open next to the original outside line. Look at the photo again. We're leaving room for the burnished outline to be added later.

Step three is to apply the sand



smalts, let dry overnight and dump off the excess. Step four is to mix your gold size, fast or slow, and size over both the smalted areas and the outline. Let this dry to the proper tack and gild using loose-leaf gold. We used a gilder's tip and a small, very soft brush to tamp the gold into the hills and valleys of the smalted areas. You can outline and/or shade as desired from here on.

This process is one of the easiest ones I have learned in a long time and doesn't take much more time and effort than normal. Well, a little more time and a little more gold, but the results are worth it to me.

In both window and surface gilding, getting a good, smooth burnish is difficult on a large letter. In window gilding, a matte center is often used to make the letter more interesting, more legible, and lets at least part of the letter be visible from almost any angle. The high lustre outline is only visible in small amounts as the outline and most imperfections, cloudiness, seams, etc. are nearly impossible to see. The sand centers can work for you in much the same manner for surface gilding as the varnish centers work on glass.

In doing a few of these gilded sand projects and samples, I have noticed that the proper tack time is much shorter than usual—say only two hours instead of three or four. Both quick and slow size seem to tack up faster.

Test first

If you are trying this for the first time, make a test sample or two on a scrap piece of the same type material. As I have stated in most previous articles, always try a few samples first. This one doesn't take much time to do. You will have a much better idea how much more to charge for the extra work and the customer will have a better idea of what he is buying! Try texturing the center of the letters on one sample, then try texturing only the outline. Try leafing over the sand. Then try painting over the sand on another, then try combinations. The possibilities seem endless. □

Pricing it right

While I am on the subject of samples again, let me ask you how many times a customer walked out of your shop carrying a sign you priced at \$200. You knew it should have been \$400 (or more) and you stood there holding the \$200, wishing you had the sign instead? I've done it countless times. The problem is that we price it for one amount, then add two outlines, a panel, and gold leaf with matte centers.

Boy, we have a blast doing them, but typically the customer walks off thinking the sign is priced correctly. He has no idea of the extra time and effort that went into it. And it's even worse when you try to tell them that they really are getting a \$400 sign. I wish I had a camera to record that look of disbelief. Sometimes they even laugh—right?

What I'm driving at here is to make samples showing your ability and techniques. The more samples with the most variety the better. When customers look at your work, they should be able to see something at least similar to what they are going to get. If they

want gold, let them see that it looks better than imitation gold—but it costs more because of the extra time and materials. In short, sell them all they can afford and do only what they order. Spend the time you might normally "give" away, making samples for you and your shop. It makes the next job even easier to sell for the correct amount.

Don't let all this sound like "anti" Letterheads and "pro" big-business. I just think it is a comfortable blend of the two. The potential customer has a choice of which techniques and how much he wants to spend. Let me tell you, I feel much better when the customer walks out with a \$400 sign and I have the \$400 in my hand. (I don't feel too bad when he has a \$200 sign and I have \$200, either!) □