

# SMSNJ Gold Leaf Tech Session notes

## Materials:

### 1. Gold Leaf

- a. Gold leaf comes in various qualities, I use 23kt gold. Each sheet is 3-1/8" by 3-1/8".
- b. 23kt gold is 95.83% pure and is best for most jobs. 24kt gold is incrementally more expensive and MUCH harder to work with. 24kt gold is 99.99% pure.
- c. 23k Gold leaf sheets are .12 microns which is equal to .0000047" or 47/ten millionths of an inch. If you touch it it will stick to your finger and be gone. If you breathe on it it will most likely disintegrate. If you sneeze on it, well, enjoy the glitter in the air while it lasts.
- d. The minimum quantify you can buy is 5 sheets. I usually buy a booklet which is 25 sheets and costs about \$40 plus shipping.

### 2. Burnishing sealer

- a. This is a paint like coating that is applied to the item being gilded before the size is applied. It gives the size a good surface to adhere to.
- b. Comes in a variety of colors.
  - i. I use red which any sailor will instantly identify with red lead paint that is/was used as a primer on anything in the Navy that (a) didn't move (b) could not be polished with Brasso. Red burnish sealer gives the gold leaf a rich, deep color.
  - ii. Yellow burnish sealer give the gold leaf a much brighter color when burnish.
  - iii. Gray is sometimes used but I've never used it so I can't tell you the effect on the finished product.
  - iv. Less common are blue and green burnish sealers but again I've never used them so I can't say what they do to the final product.
- c. One half pint will cost you about \$10 plus shipping.

### 3. Sizing

- a. This goes on top of the burnish sealer and is what the gold leaf is applied to.
- b. Sizing comes in two varieties: Quick Dry and Slow Dry. I use Quick Dry
  - i. Quick Dry sizing is a little thinner than the slow drying type. Under normal conditions (my shop) it will reach the correct amount of tack in about 90 minutes. It will maintain this tack for 90 minutes. It will dry hard in about 36 hours.
  - ii. Slow Drying size will reach the correct amount of tack in 10-12 hours and maintain it for about 24 hours and will dry hard in about 72 hours. This is good for restoration work on very large jobs but for what we are doing the amount of open time is probably a liability because all the while it is drying dust and dirt can get into the size and you might not notice it until it is too late.
- c. One half pint will cost you about \$13 plus shipping

I stress the "shipping" part because it is expensive. Plan your current and future work and purchase as much as you can use all at one time. I placed an order for \$29 worth of material and the shipping was \$12.

## Process

### 1. Sanding:

- a. The surface of the material to be gilded should be sanded as smooth as possible. When carving signs I use 600 grit for the final sanding.
- b. Try to maintain sharp edges for best effect.
- c. Surface must be immaculately cleaned. Any dust or roughness WILL show up and WILL detract from the look of the gold. I use a new tack clothe for cleaning and I go over the piece multiple times to make sure it is clean.

### 2. Sizing

- a. Make sure no paint brush bristles end up in the size as they will show up in the final product
- b. Do not let the size pool in recesses because it will still be liquid when non-pooled surfaces are ready to guild and the gold will not adhere to the pooled size.
- c. If you leave a finger print in the size there is a good chance that you'll see it in the gold when you are done. In larger pieces I burnish the gold when I'm done and that will get rid of finger prints but why take a chance. The way to test the tack is to touch the surface with your knuckle. When you remove your finger if the size pulls the skin that is the right amount of tack. What I do is create a test piece of that has been sanded to the same finish as the piece to be gilded and I use the same brush to apply size to the test piece. I then test for tack on this test piece. I can touch it repeatedly until the tack is correct without worrying about leaving marks.

### 3. Gilding

- a. Once the sizing has reached the right amount of tackiness it is time to apply the gold leaf.
- b. Gold leaf is EXTREMELY fragile being only about 50/ten millionths of an inch thick. If you breathe on it you will likely damage the sheet. If you sneeze on it enjoy watching the glitter in the air because that's all you'll have left.
- c. I use transfer leaf which means each sheet of gold comes on its own sheet of tissue paper.
- d. Carefully remove the tissue paper backing from the booklet and place it face up on your bench.
- e. Using a sharp scalpel blade slice through the gold and the tissue paper so that you have a piece that is slightly larger than the section you are going to gild. To save time I usually plan out how many sections I'm going to cover before cutting more gold leaf. I plan the cuts to get maximum coverage with a minimum of waste (gold dust is expensive).
- f. Using tweezers take a single piece of gold tissue paper and gently turn it over and place the gold onto the surface of the item you are gilding.
- g. With a small brush with short bristles GENTLY tap the back of the tissue paper. The goal is to push the gold down onto the size.
- h. After as much of the gold is transferred as possible remove the tissue paper.
- i. Repeat steps G & H until the entire surface has been covered. Go back over areas you missed.
- j. Keep an eye on the clock, using quick dry size you have about 90 minutes to complete the work.
- k. Put the piece aside and resist the urge to touch it until well after the dry hard time has passed. With quick dry size this is 36 hours but I usually wait 48 hours.

#### 4. Burnishing

- a. This is the final step and is used to bring out the maximum shine.
- b. This should not be attempted until you are 100% positive that the size has dried hard. When in doubt, wait some more. Waiting will not hurt anything but rushing will.
- c. When using quick dry size I usually wait at least 2 days after applying the gold leaf before I attempt to burnish it.
- d. Two days after the gold have been applied the piece can be burnished. I do this in two steps:
  - i. With a very soft bristle brush with long bristles I very gently brush the surface. I'm moving any loose gold around. This will turn any loose flakes to dust which may or may not adhere to the gold that is well attached by the size.
  - ii. The second step is to very gently rub the gold with a very clean, very soft COTTON rag. Not sure why but cotton works best and is recommended by the company that produces the burnish sealer and size.

23K Genuine Gold Leaf

★★★★★ (39 customer reviews)

\$9.42-\$624.43

Package and Type

1 Add to

Choose an option

- 5 Sheets of Loose Leaf \$9.42
- 5 Sheets of Transfer Leaf \$10.18
- Booklet (25) of Loose Leaf \$39.25
- Booklet (25) of Transfer Leaf \$42.41
- 4 Booklets (100) of Loose Leaf \$137.97
- 4 Booklets (100) of Transfer Leaf \$154.71
- 10 Booklets (250) of Loose Leaf \$330.97
- 10 Booklets (250) of Transfer Leaf \$355.64
- Pack (500) of Loose Leaf \$567.37
- Pack (500) of Transfer Leaf \$624.43

SKU: GEN2300-BK5L Category: Genuine Gold & Silver Leaf