

# GOLD LEAF A N D METALLIC POWDERS



## Product Users Guide to Using Metallic Powders & Mica Pigments

### TECHNICAL INFORMATION

**GLMP** presents the most comprehensive assortment of Metallic Powders offered in Basic Colors, Speciality Colors, Pearlescent, Iridescent and Sparkle Colors

**Metallic Powders** are basically made from metal flakes or mica flakes. Metallic powders are the colored pigments used to make metallic paints. You now have the unlimited option of making a wide range of colored metallic coatings using oil/acrylic varnishes, glazes, lacquers, high performance clear coats. The pigment/micro flake size determines the type of finish you will achieve. A coarse powder reflects a brighter, more brilliant finish. The finer the pigment the smoother or duller the finish.

**Metal Powders** are made of copper, copper & zinc/tin alloys, and/or aluminum. They are skilfully blended together to form a variety of beautiful colors and shades. Metal powders are also heated until a new color develops of the heat oxidized effect. The line of Fired Colors exude dark rich metallic shades. Exterior metal pigments are silica coated for better stability, excellent outdoor durability and tarnish resistance. Exterior pigments are always recommended for usage in exposed areas or harsh damp conditions.

**Mica Powders** are made from mica and earth pigments. The mica powders are chemically colored for light fastness. Pearlescent, Iridescent colors are transparent pigments allowing light to reflect and refract to create depth and pearlized effects. Mica powders are non reactive and may be mixed with any medium with no concern of unwanted patination/oxidation.

#### Mixing Guide:

Metal powders add to: Lacquers, Polyurethane, Oil Varnish, Waxes and even Glass (liquified) that will form a film to encapsulate the metallic powder.

Avoid mixing metal powders with water based clear coats. Your finish will Patina (turn green unexpectedly)

Mica powders add to: Lacquers, Polyurethane, Oil Varnish, Acrylic Vanishes, Glaze, Epoxy and Waxes.

When mixing the powder here are some tips.  
Make a slurry or paste with the thinner used to reduce the medium  
Water based Clear coats - use denatured alcohol  
Water based Glaze - use denatured alcohol  
Lacquer - use Lacquer thinner  
Oil Varnish - use refined mineral spirits  
Waxes - use turpentine  
Then add to the clear coat medium

The higher the quality of clear coat medium used, the better the metallic finish appears.  
Paint is not recommended to mix powders with as it masks out the metallic powders.

**Tip:** mix a pearlized mica into a clear coat and coat the paint for a metallic effect.

**Mixing Ratios** for high opacity

4:1 for metal powders  
7:1 for Mica  
6:1 for Aluminum

<u>Container Size</u>		<u>Metallic Powder</u>	<u>Clear Coat</u>
Small	2oz	Metal	1 pint
	1oz	Mica	1/3 pint
	1oz	Aluminum	2 pint
Medium	6oz	Metal	1 quart
	3 oz	Mica	1 pint
	3oz	Aluminum	1 pint
Large	16oz	Metal	1 gallon
	8oz	Mica	1 quart
	8oz	Aluminum	1 quart

**Clear Coats**

The higher the quality of clear coat will give the best results for a metallic finish. The high solids will suspend the metallic powder to create the illusion of depth. Top coating the metallic finish will give added depth and durability.

As a general rule, when combining products from different manufactures, it is advised to contact the manufactures to inform them as to how you are planning to use their products. Their customer service or technical advisor can provide guidance on the appropriate use for their product.

**Note:** when mixing aluminum powders, mixing in acrylic clear coats and storing is not recommended. Pressure from the slow reaction of water based solvents and aluminum powder will produce gas that will pop the top of the container.

**Gilding**

Using gold size according to required drying times, from 30 minutes to 24 hours. The most suitable drying time depends on how large a surface to cover. Cover the entire surface with sizing, using a stiff bristle, short haired brush. Brush the size in a thin, even layer. Once the size has the same tack as adhesive tape, apply metallic powder with a soft make up style brush. With out over brushing, build up layers of metallic powder until the color is even. Allow to dry then over coat with a varnish.

**Waxes**

Wax for antiquing is made by mixing beeswax polish and a little turpentine or solvents.

Coloring with oil pigments or metallic powder.

Venetian Plaster Wax: add small amount of turpentine to the powder to make a slurry then add it to the Venetian plaster wax.

Gilding wax: add small amount of turpentine to the powder to make a slurry then add it to the beeswax polish.

**Glazing**

Glazes are thin with low solids and high solvents. Use the glaze to create a transparent pealized effect.

Glazes are not recommended to reproduced solid metallic finishes.

**Patina**

Metal powders will patina when oxidized using corrosive acids, bleach, and vinegar.

Mica powders can be given the patina effect with paint and colored glazes.

### Guide for Metal Effects:

<b>Metal Powder</b>	<b>Solution</b>	<b>Effect</b>	<b>Finish Coat</b>
Copper	Barium Sulphide	Blackened/Tarnish	Clear Varnish
Brass	Cupric Nitrate & Ammonium Chloride	Blue Green Patina	Do not clear coat
Pale Gold	White Vinegar	Green/Gray	Clear Coat

Intensity of color depends on the length of time exposed to solution. Neutralize the solution with water to arrest the oxidation process.

### Base Coats:

<b>Metallic Finish</b>	<b>Base Color</b>
Metal Gold	Red Oxide, Black
Copper	Black, Green
Silver	Gray
Mica Gold	Yellow Oxide
Iridescent/Sparkle	Black
Pearl	Cream

\* Remember the smoother the foundation/base, the more realistic metallic finish.

### Safety & Handling

- Avoid making the powders airborne.
- Choose to liquify the powder into a slurry using the thinner for the clear coat
- Use a small scoop or spoon to remove the amount of powder needed rather than pour out the powder.
- Wash you hands after using the powders
- For added protection, wear a dust mask.