



**METAL LEAFING** Throughout history, the art and craft of leafing has been used to create and embellish some of humanity's most revered works of art. Egyptian relics, Far Eastern Temples, illuminated manuscripts and fine art have been leafed and embellished by artisans. And it's easy to see why. The process of leafing can be employed on wood, metal, ivory, leather, paper, glass, porcelain, and fabrics. Leaf can be worked in delicate miniature as well as on architectural structures such as domes and vaults. For any art or application, there is a metal leafing technique.

**THE HISTORY** Gold was first discovered in 4000 B.C. by people living in what is now Eastern Europe. While they used it for crude ornamental purposes it wasn't until a thousand years later that the Sumerians used gold to create a wide variety of sophisticated jewelry. Then in 1200 B.C. the Egyptians discovered that it was possible to beat gold into a fine sheet. It is possible to create a sheet of gold that is thinner than a human hair. It was with this remarkable discovery that the art of metal leafing was born. Examples of leafing or gilding are not particular to one culture or region, but rather have been found throughout the world. At the same time metal leaf was being used to adorn the tombs of Egypt it was also being used on pre-Columbian figures in Central and South America. The benefits of leafing are obvious. Leafing allows the artisan to create an object that has the appearance of solid metal, without going to the expense of casting a solid object in a precious metal.

**THE PROCESS AND THE PRODUCT:** The ancient process of making metal leaf was difficult and time-consuming. Craftsmen would place a small piece of metal into what was called a "goldbeater's skin." This skin was made from the outer membrane of a calf's intestine, which is transparent, elastic and will not rip or tear during the long hours of hammering required to create a piece of leaf. Today of course, the process is made far easier through the use of computerized beating machines. But even with modern equipment, the creation of metal leaf is tricky and very time-consuming. Though the core difficulty remains. Each piece of gold must be flattened, cut and flattened again. To create a final sheet of flattened material this may have to happen hundreds of thousands of times. This is why even today there are only a few manufacturers around the world who can produce high-quality metal leaf.

**THE TECHNIQUE:**

**[1] Prepare the surface** *This can include sanding, shaping and carving. Porous surfaces need an application of a sealer or undercoat*

**[2] Apply adhesive to the surface**

*Because metal leaf is so thin, it is important to take care that the adhesive application is smooth with no brush strokes. When brush strokes are present it will show in the finished leaf surface.*

**[3] Let adhesive dry until tacky**

**[4] Apply Metal Leaf**

**[5] Apply a Sealer**

**METAL FLAKES**



**GOLD**



**SILVER**



**COPPER**

**Genuine Metal Leaf**



**GOLD**



**SILVER**



**COPPER**

**Simple Leaf**



**GOLD**



**SILVER**



**COPPER**

**TYPES OF METAL LEAF:**

GENUINE GOLD LEAF  
 COMPOSITION LEAF™  
 SIMPLE LEAF™  
 UNDERCOATINGS

FINE SILVER LEAF  
 IMITATION SILVER LEAF™  
 METAL FLAKES™

COPPER LEAF  
 VARIEGATED LEAF™  
 AUTHENTIC METAL POWDER™

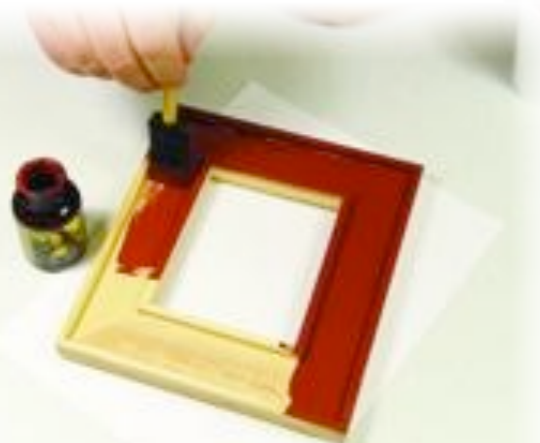
Traditionally, undercoatings have been applied for both form and function. Since leafing requires a non-porous surface, undercoatings often act as a sealant. It also provides an additional color enhancement or tint to the applied leaf. Red Oxide was used as the traditional undercoating by master gilders because it brought out the brilliance of the gold leaf, and since leaf is thin, it was often burnished and sanded to let the undercoating show through. This technique is often referred to as Old World gilding.





## Metal Powders™

This versatile product gives the true look of metal in any mixed medium. Finely ground metal powders are used as a metallic pigment that retain the look and feel of metal when mixed with a binder. Powders can be blended to create faux finished surfaces and faux patinas. Metal powders take on the characteristics of the medium they are mixed with, whether it is a gloss, flat, frosted or iridescent finish. True metal powders have a brilliance that is not achieved with Mica Powders. While it is best to use an oil base to mix, water based sealers work well and will not tarnish metal powders. Metal Powders™ can also be annealed in the oven. This works on items, which will not burn at 300 degrees for 5 minutes. This technique lends itself well to polymer clays, glass and metals. Metal Powders™ are best used on surfaces that are intricate and where regular metal leaf techniques can not be easily applied.



## Undercoatings

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## Adhesives

Adhesive or sizing, comes in many forms, and all forms share one important property called open time. This is the amount of time that the adhesive stays workable after it has been applied. In most cases, the adhesives used for leafing will allow the artist to apply the adhesive to large areas without having to worry about it drying out before leaf is applied. Traditional adhesives are oil based, but in recent years, the advancement of water-based adhesives has made them very popular.

# SSC

# METAL LEAFING



## Sealants

Sealants are applied to metal leaf to protect its appearance. While pure gold leaf does not need to be sealed a sealant is usually applied to help insure that the leaf does not wear away over time. Composition and other leafs must be sealed to prevent oxidation and tarnishing. Often times it is desirable to tone down the leaf by applying a water-based glaze. If this effect is desired, it is important to seal the leaf before applying the glaze. Common sealants include urethanes and shellac, but there are some excellent water-based sealants available.

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