

GILDING WITH KOLNER INSTACOLL



By Mark Randall

In the world of gilding, the question that arises frequently is “can I oil gild a surface and get the look of burnished gold without water gilding.” The answer has always been “no”. The reason is simple: you cannot use an [agate burnisher](#) on oil gilding. It will scratch the leaf, not polish it. A brief explanation of the techniques will explain the reasons why this happens.

Traditional water gilding consists of [gesso](#) and [bole](#). The gesso is applied to a wood surface and then the clay (bole) is applied over the gesso. The bole gets sanded and polished. This surface is then coated with gilder’s liquor, made from water and alcohol. The liquor stimulates the glue in the bole and the leaf sticks to the surface. When the surface has dried, an [agate burnisher](#) is rubbed on the gold surface to polish the leaf. What the agate is really doing is compressing the bole and gold layers. Water gilding is more detailed than this, but I have simplified it for our discussion.

Oil gilding or “mordant gilding” is the application of an oil varnish or acrylic “[size](#)” applied over any non-porous surface like paint, shellac etc. When it comes to “tack” it’s ready to accept the leaf. The way to achieve the most brilliance in oil

gilding is to gild a surface that is as smooth and as shiny as possible. In general, a slow oil size will gild brighter than quick oil size, which in turn will gild brighter than a traditional acrylic size. No agate is used, it will only scratch the leaf and size.

[There is a gilding size that many gilders have not heard of. It was developed by Kolner in 1990 for interior and exterior gilding projects. It is called Instacoll and it achieves a super shiny, mirror gloss finish as bright as traditionally burnished gold](#)
Instacoll has been fully tested since 1990 and meets the requirements for long lasting exterior gilding. Instacoll was used on the 2583 sq.ft. *Victory Column* in Berlin in 2010. The Berlin State Heritage Department decided to use Instacoll because of the durability it has shown for the last 27 years on exterior gilded projects. It has recently been used on the Academy of the arts in Dresden as well.



Kolner Products was established in Cologne Germany in 1979 and now makes its home in Dresden Germany. Kolner is recognized for their innovative water-based adhesives for gold leaf. In the USA Kolner is best known for their [Kolner Burnishing Clay](#), a water-based, one-layer gilder's clay, which replaces the gesso and bole layers of traditional water gilding. Kolner has a full range of water-based products that includes gilding adhesives for metal leaf, gilding on stone, paper

and ceramics, not to mention traditional products like gilders clay, oil size and gilding tools. All Kolner products are available exclusively through SeppLeaf Products. www.seppleaf.com or call 212-683-2840.

[Instacoll](#) is not like other sizes. It's a two part water-based system that consists of a base and an activator. It is great for both interior and exterior projects. First you apply 1-2 layers of the base. When dry, you apply a coat of activator. The activator stimulates the base coat. The activator will dry in about 15 minutes. You are now ready to gild for about 1 hour. You will **not** feel any tack as you would with traditional size so you have to watch the clock to see when your hour is up. For continuous gilding just keep applying the activator about every 30-45 minutes. Always let the activator dry before applying the leaf or you will get a dull mark. Never let the activator touch the leaf or it will make a permanent stain.

Let's go over each step in detail.

1. Prepare the surface as you would for oil gilding. The surface should be clean and free of oils, dust and dirt. Prime the surface with an appropriate primer. A high gloss finish is recommended. Lightly abrade the surface with an ultra-fine scuff pad such as ScotchBrite.



2. The Instacoll base is available in yellow and clear. Thin the base 3-5% with water, 5-10% if spraying with a HVLP gun. Apply the base generously and evenly

with a Kolner [synthetic fiber brush](#) to avoid brush marks. Make as few passes as possible to minimize brush strokes. Let dry 1-3 hours before applying a second coat. After applying the last coat let the base dry for 1-3 hours. It will take a little practice to get used to applying the base. Like any water based product it sets up fairly quickly.

3. Apply activator when the Instacoll has dried. It can be applied up to 1 year later. Use a [synthetic fiber brush](#) or a [lint free cloth](#) soaked with activator. Apply a thin coat of activator on an area that can be gilded within 60 minutes. Wait until the activator has dried, about 15 minutes. Instacoll's tack is so faint and dry that you really can't feel it. So it's best to rely on the clock. Do not touch the activated area as this will decrease the leaf adhesion. The activator is clear, so make sure you have coated the whole area you want to gild.



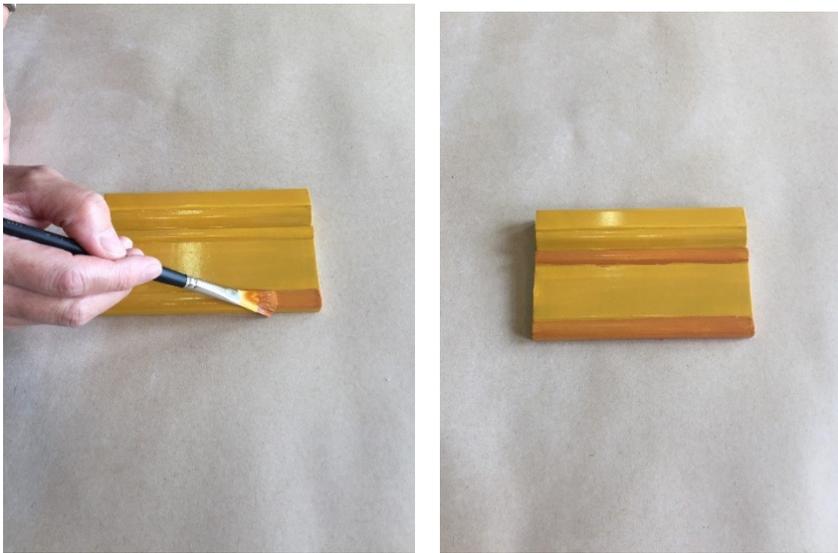
4. Now it's time to gild. Since the tack is so dry you need to press firmly on the leaf to get the leaf to stick to the surface. I find that [patent leaf](#) works extremely well as one can press down on the transfer paper. For loose leaf it's best to use the [Kolner Burnishing Chamois](#) (an ultra-soft and lint free cloth) to press down on the leaf. For working on surfaces with relief, Kolner has a tool called the Gilding Presser that you can use to push the leaf into recesses.



When you have covered the surface with leaf, take the [Kolner burnishing chamois](#) and press down on the leaf overlaps to make sure you have full contact with the surface. If you have any “holidays” or gaps, apply leaf to those areas and press down with the transfer paper and then with the chamois. Then, using gentle pressure with the chamois, rub the surface in a circular motion to improve adhesion and remove excess leaf. In the process, the leaf will become as bright as traditionally burnished gold.



I'd like to introduce another Kolner product called [Instacoll Matt](#). Matt works the same way as the Instacoll base except that it produces a matte finish. It can be applied over the Instacoll base or mixed with the base to achieve different degrees of brilliance. The Matt can also be applied over the base to produce decorative designs with matte and burnished effects like a water gilded picture frame. Apply the Matt the same way as the base and let dry 1-3 hours. Instacoll Matt is for interior use only and is orange in color.



For gilding with heavy weight gold (20gm/1000 leaves or higher), use Instacoll HA (high adhesion). It provides a slightly stronger adhesion for the heavier gold. The HA is also available in gray for palladium and silver. HA must dry a minimum of 48 hours before it can be activated with the Instacoll Activator HA.

Some practice may be needed to master the Instacoll gilding system, but after a few test pieces you will enjoy the benefits and brilliant sheen all gilders hope to achieve.

My friend Charles Douglas sometimes offers classes on the Instacoll gilding system. For more information, contact Charles at www.gildingstudio.com

Also, see the [SeppLeaf Class Schedule](#) for more information.



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http://seppleaf.com/technical_help

If you have questions or need clarification, please contact our knowledgeable staff via that link.

Products used in this Technical Guide

Kolner Instacoll

<http://seppleaf.com/search?q=kolner+instacoll>

Kolner Burnishing Clay

<http://seppleaf.com/search?q=kolner+burnishing+clay>

Kolner Burnishing Chamois

<http://seppleaf.com/search?q=kolner+burnishing+chamois>

Cotton cloth

<http://seppleaf.com/search?q=cotton+cloth>

Synthetic fiber brush

<http://seppleaf.com/search?q=synthetic+fiber+brush>

Products mentioned in this guide

Gesso

<http://seppleaf.com/search?q=gesso>

Agate Burnisher

<http://seppleaf.com/search?q=agate>

Manufacturers whose products are distributed by SeppLeaf Products

Kolner Products

<http://seppleaf.com/products/bybrand/kolner>