

Kölner Instacoll System Application Instructions

Kölner's unique Instacoll System is an innovative way of gilding, using modern water-based materials to create high gloss gilded surfaces that rival burnished gold in its brilliance. Instacoll can be used indoors and outdoors, and has been used on prestigious monuments since the 90's and has a proven track record of longevity outdoors. The system is versatile and can be used on nearly any substrate, so long as it has been properly prepared - it can even be used on glass!

Kölner Instacoll is a water-based two-part system consisting of Instacoll Base Size and Instacoll Activator. The base is available in either Yellow or Clear. The basic process involves applying Instacoll Base Size where you want to apply the leaf, allowing to dry and then reactivating with Instacoll Activator, allowing the Activator to dry and then applying the leaf. This will create a highly-burnished surface without the need for agate burnishing!

Application of Kölner Instacoll by Brush

Prepare the Surface

Ensure the surface is dry and free of dust and grease. If the surface has been recently painted or primed then allow to fully cure before applying the Instacoll System. For cleaning the surfaces prior to gilding we highly recommend using ethanol or methylated spirits. The ideal surface should be non-porous, sealed and smooth – this will produce the highest degree of gloss. Some surfaces may require special preparation:

Porous surfaces (unfinished stone/plaster) – Initially coat the area to be gilded with a diluted mix of Instacoll Base 85%/ water 15%. Once this has dried (approx. 30 minutes) another full-strength coat of Instacoll Base Size can be applied.

Wood – Untreated wood must be primed with a suitable wood primer.

Metal – Metal surfaces must be thoroughly prepared before application of Instacoll to avoid contact oxidisation between the metal surface and the gold leaf and to protect the metal from weathering and corrosion. First prepare the metal with a suitable metal primer, following the manufacturers instructions. Then we recommend applying paint to further protect the metal – for indoors a single coat of water-based acrylic paint should be sufficient. Outdoor projects require more protection and we recommend two coats of a suitable high-gloss paint, preferably an alkyd or combination alkyd/polyurethane paint. This layer should then be lightly scuffed with Ultra-Fine Scotch Brite Pads to provide a key for the base size.

Glass – Instacoll Base Size can be applied directly onto glass, but is suitable only for interior use.

Powder-coated Surfaces – Instacoll Base cannot be directly applied to a powder coated surface. Any powder-coated surface must be sealed with an appropriate primer before application.

Applying Instacoll Base Size



Like most other water-based products, Instacoll is best applied at moderate temperatures. The optimum temperature for application is between 15 and 25°C. Between 5 and 15°C the product must be thinned more to ensure the correct consistency and flow is maintained. At temperatures below 5°C the product cannot be used and at temperatures above 25°C only small areas can be gilded.

The product should be stirred before application, but do not shake the product as this will introduce air and bubbles into the Instacoll Base Size which will create bubbles and voids in the gilding. To help with application of the Instacoll Base Size it can be thinned with approximately 3-4 drops of water per 50ml. The aim is to create a consistency similar to single cream—the size should drop off the brush in one continuous stream.



The Instacoll Base Size is best applied using a synthetic-bristle brush, like the Kölner Synthetic Toray brushes and should never be applied with a roller. The product should be applied evenly and generously using the brush, in a method similar to applying an alkyd paint or laying on varnish. If the product is not applied generously enough then visible brush marks may remain. However, if the paint is applied too generously then there is a chance of some wrinkling after gilding. It is also important not to overbrush when applying Instacoll Base Size as this can create bubbles and leave brush strokes. If the first layer is not applied generously enough it is possible to apply a second layer over the first once it has dried completely to improve the levelling of the surface.

The finished surface should look smooth and glossy, the gloss and brilliance of the base layer is an indicator of the finished look of the gilding.



When recoating we recommend waiting one hour minimum before application of the second coat. Usual application for the second coat is between one and three hours but some experienced gilders will leave it overnight before recoating for the best possible finish.

Wait at least an hour after applying the last Instacoll Base layer before applying leaf or activator. The minimum drying time is suggested as an hour, to test to see if the Instacoll Base is dry you can take a single transfer paper from some used transfer leaf and press it to the surface. If the tissue does not stick then the Instacoll Base size is dry.

After the last layer of Instacoll Base has dried you have approximately one hour of working time to apply leaf **without using Instacoll Activator**, please go to the Applying The Leaf section for instructions on the correct way of applying leaf to Instacoll Base. Please note, applying leaf in this way is only possible indoors, if you are gilding outdoors then you will need to allow the Instacoll Base to completely dry and then follow instructions for applying Activator.



Applying Instacoll Activator.

Ensure the Instacoll Base is completely dry before application of Instacoll Activator. Using a clean cotton rag wipe the Activator thinly and evenly over the surface. When applying Activator, it is good practice to activate only the amount of the base that you can realistically gild over in 60 minutes. After 60 minutes the adhesion of the activated surfaces drops and the leaves will not stick as well. After this working time you will need to keep reactivating the surface to keep gilding. You can reactivate ungilded Instacoll Base repeatedly and can even leave it dry for up to six months before activating again. It is good practice to finish the job in as short a timeframe as possible though, as leaving the Instacoll Base too long can make it more difficult for the leaf to adhere.

After application, the surface should be ready to receive the leaf in 5-10 minutes. Please note, you should only apply leaf to the surface after the activator is dry.



Applying the Leaf

To apply the leaf first press the transfer leaf down onto the surface, with the gold side down, and then press the tissue backing paper with the Instacoll Tissue. This will release the leaf from the tissue and stick it to the Instacoll Base or dried, activated Base. Once this is done you can remove the tissue paper and then, using the Instacoll Tissue, gently press down directly onto the gold leaf to help fully adhere it. When working on relief detail or intricate surfaces we recommend using an Instacoll tool instead of the Instacoll tissue to help push the gold into the recessed areas. As with any other gilding

we recommend overlapping the gold leaf when laying it, to ensure minimal joins.

During the laying process, it is possible to eliminate any overlap lines in the gold leaf by pressing the Instacoll Cloth onto the seam and, while using gentle pressure, turning the cloth in circular motions along the line of the join. Take care not touch any activated Instacoll Base Size that has not had gold applied as this will contaminate the base size and affect the appearance of the leaf.

Once all the leaf has been laid press down on the complete surface again with an Instacoll Tissue, then rub the surface gently with the Instacoll Tissue in a single direction to get a high-gloss gilded finish.

Faults in the leaf can be filled by using the above method or alternatively you can use loose leaf. The loose leaf method is slightly different. The first step is to apply Instacoll Activator thinly to areas that need to be patched in. Then the loose leaf is laid onto the wet activator and allowed to settle. After the surface has dried sufficiently the leaf should be pressed gently using an Instacoll Tissue. This finish is not as brilliant as you would get following the process outlined above but it can be applied weeks or months later if the surface needs to be repaired.



Weather Resistance

Surfaces that have been gilded using the Instacoll System can be exposed immediately to mild meteorological situations (dry, moderate temperatures.) However, adverse weather conditions such as low temperatures with rain, snow or hail will extend the drying time (by several days, depending on conditions).



Kölner Instacoll System For Matt Gilding Application Instructions



The Kölner Instacoll System for Matt Gilding is an innovative system for creating matt gilded finishes for indoor gilding. Please note, the Matt system can not be used for outdoor applications. The system is water-based and consists of two products:

- Instacoll Base Size in Yellow Matt or Clear Matt
- Instacoll Activator

The product is applied in the same way as the Kölner Instacoll System and you should follow all instructions above, substituting Yellow Matt or Clear Matt Instacoll Base Size where Instacoll Base Size is mentioned.

The Yellow Matt Base Size is darker than the Instacoll Yellow Base Size and this helps differentiate the two when used on the same surface.

If you are working with both on the same surface we recommend the following process—

1. Apply Instacoll Base Matt (or Instacoll Base) onto the entire surface. Allow to dry for three hours.
2. Tape a section off with low tack masking tape and apply a coat of Instacoll Base Size (or Instacoll Matt Base Size) and then allow to dry for one hour minimum. Once dry, remove the tape and follow the instructions above for applying the Instacoll Activator and applying the gold leaf. With the Matt Base size it is impossible to lay the leaf without using the Instacoll Activator. Once the leaf is laid the effect of the contrasting gloss and matt areas will be immediately obvious.

It is also possible to mix Kölner Instacoll Base Size and Kölner Instacoll Matt Base Size together to create a custom shade between gloss and matt based on the ratio between the two.

Kölner Instacoll System HA (High Active) Application Instructions



The Kölner Instacoll System HA (High Active) has been developed to have a slightly better adherence than the standard Instacoll System and is specially designed for use with heavier weight leaf, such as gold leaf of 20g/1000 leaves and above. It produces high gloss, lustrous finishes and can be used for both interior and exterior surfaces. The system is water-based and consists of two products:

- Instacoll Base Size in Yellow HA, Grey HA or Clear HA
- Instacoll Activator HA

The product is applied similarly to the Kölner Instacoll System, but has a much longer drying time. The Instacoll Base Size HA must be allowed a minimum of 48 hours to dry before it is activated using Instacoll Activator HA. Instacoll Base HA cannot be used for 'dry gilding' and the surface must be activated using Instacoll Activator HA and allowed to dry before leaf is applied.

To apply this product follow all the guidelines for application of the Kölner Instacoll System, substituting Instacoll Base Size Yellow HA, Clear HA or Grey HA (if working with silver or palladium leaf) for Instacoll Base Size, and also substitute Instacoll Activator HA for Instacoll Activator.

When applying the Instacoll Activator HA please follow all the instructions for application of Instacoll Activator provided above, allowing the same time to dry before applying the leaf.



Tips & Advice

- Instacoll Base Gloss can be used for signwriting without Activator. Let the surface dry after the application of Instacoll for about an hour. You will then have around an hour for gilding.
- Always use a synthetic hair brush, like the Kölner Toray brushes, for the best results.
- Always use the Instacoll Tissue for both pressing down and polishing the leaf.
- The Instacoll System can be spray applied on larger projects, please ask for our detailed spray instructions.
- Instacoll System can NOT be used for objects in regular or permanent contact with water (such as fountains, water features etc.)
- When laying a large area, it is useful to use a timer. Use Instacoll Activator to activate an area of the Instacoll Base that you think you can gild within an hour and then some extra. Set the alarm to 50 minutes. When it rings you start to activate the next area. When applying this activator, you overlap with the extra activated area to ensure a continuous, seamless finish to the gild. Wait for the Activator to dry, then continue to gild and activate the Instacoll Base Size until the surface is done.
- If you are working on a large piece and want to take a break in the gilding then we recommend gilding up to a natural edge of the item to avoid any seams when you begin the process again the following day.
- Never pour any unused product back into the container after completing gilding. Always store product in a cool, frost-free environment.
- As a water-based product Instacoll Base and Instacoll Activator can be cleaned off using warm water and soap.

