

High-gloss gilding for interior and exterior applications

Kölner Instacoll System

The system consists of two components:

1. Instacoll Base yellow or clear
2. Instacoll Activator

Method

The Instacoll gilding system is a sophisticated adhesive system for high-gloss exterior gilding. The system has been extensively tested and meets the requirements for durable outdoor gilding.

Since 1990, the Instacoll System has been used on many well-known monuments with excellent results.

First, the Base is applied. After drying, it achieves the required adhesion by applying a second product, the Activator.

Surface

Surfaces must be dry, free of dust and grease, and pretreated in the usual manner. The best results are generally achieved on a smooth surface. Furthermore, surfaces must be capable of withstanding outdoor weathering even without gilding.

When gilding metal, the surface must be pretreated with a primer and two coats of high-gloss paint. (tip: color RAL 1001). These layers must be thoroughly dried. The first coat is matted, for example with Scotch-Brite (abrasive fleece). The primer and paint layers serve as an insulating barrier to prevent contact corrosion.

Attention: Never apply Instacoll Base directly onto a powder coating.

Application of Instacoll Base with a Brush

Instacoll Base is applied evenly with a (Toray) synthetic hair brush and can be diluted with tap water. At temperatures between 59 °F and 71.6 °F, the product does not need to be diluted. At temperatures between 41 °F and 59 °F, slight dilution is necessary.

Below 41 °F, the product cannot be processed.

At temperatures above 71.6 °F, only small surfaces can be treated.

Apply Instacoll Base generously. If the product is applied too thinly, brush marks will remain visible. If a second coat is required to achieve surface smoothness, the first coat must be completely dry before application. Applying an excessively thick layer in one operation may cause sagging and wrinkling.



Application of Instacoll Base by Spray Technique (Low Pressure)

Adjust the product to a viscosity of 20 to 28 seconds (DIN cup 4) at 68 °F. (At temperatures below 41 °F, the product cannot be processed.) This corresponds to dilution with 5% to 10% tap water.

Use a spray nozzle of 1 to 1.5 mm. Drying time when spraying is usually longer than when applying with a brush, as the sprayed layer is generally thicker. If necessary, drying can be tested using tissue paper (see drying time).

Drying Time

At a temperature of 68 °F, the drying time is at least 1 hour. For safety reasons, however, 3 hours are recommended. At lower temperatures or high humidity, the drying time will be longer. Whether the layer is completely dry can be tested as follows: Take a piece of tissue paper from a booklet of gold leaf and gently press it onto the surface. If the layer is well dried, the paper will not stick.

Application of Instacoll Activator and Gold Leaf

Once the Instacoll Base layer has dried, the Instacoll Activator can be applied. The application of the activator is not time-limited and can therefore also be carried out months later. Use an Instacoll Tissue soaked with Instacoll Activator. Apply the Instacoll Activator only to an area that can be covered with gold leaf within 60 minutes. (Attention: If gilding is carried out for longer than 60 minutes on an area already treated with activator, there is a risk that the gold leaf will no longer adhere properly.)

The Instacoll Activator dries in approximately 5-10 minutes. Once the activator is completely dry, the Instacoll Base is activated and has developed exactly the right tack for high-gloss gilding with gold or silver leaf. Lightly press the gold leaf down using an Instacoll Tissue. For surfaces with relief, the practical Instacoll Tool can be used, which allows the gold leaf to be pressed into recesses. Work with slight overlaps to ensure that no uncovered areas remain. Within the working time, rub the edges of the individual pieces of gold leaf together using a soft cloth, applying light pressure and circular movements. All applied gold leaf must be pressed down and polished.

Ensure that areas already treated with Instacoll Activator but not yet covered with gold leaf are not touched, as this would reduce adhesion. (Tip: Use the special Instacoll Tissues.)

Polishing with agate stones is not possible.

Weather Resistance

Surfaces gilded with gold leaf can be exposed immediately to mild weather conditions (dry and not too cold). In adverse weather conditions, such as low temperatures combined with rain, snow, or hail, a longer drying time (several days, depending on the weather) must be expected. Over time, gloss intensity will decrease due to weather exposure, compared to traditional oil-size gilding Instacoll remains glossier.



Kölner Instacoll System MATT (Indoor Use Only)

This system works in the same way as Instacoll for high-gloss gilding.

The matte yellow version is darker than the glossy yellow version, making it easy to distinguish between matte and glossy gilded areas.

If required, Instacoll Base Matt and Instacoll Base Gloss can be mixed.

Proceed as follows:

Apply Instacoll Base Matt to the surface to be gilded and allow it to dry for at least 3 hours.

Then mask the desired areas with adhesive tape (e.g. a decorative strip).

Apply Instacoll Base Gloss to the surface already treated with Instacoll Base Matt and allow it to dry.

Then activate and gild.

When applying the gold leaf, a combination of glossy and matte effects is automatically created.

(Naturally, the process can also be reversed: first apply Instacoll Base Gloss, then Instacoll Base Matt.)

Instacoll matte gilding is not recommended for outdoor use, as matte surfaces attract more dirt.

Kölner Instacoll System HA (High Active)

Instacoll HA has slightly higher adhesion and was developed specifically for metals thicker than standard gold leaf.

Instacoll HA is used for extra-thick gold leaf with a quality of more than 20 g per 1,000 leaves.

Instacoll HA grey was developed specifically for the processing of silver leaf and palladium.

Apart from a different drying time, the processing of Instacoll HA is the same as that of standard Instacoll.

Instacoll Base HA must dry for a minimum of 48 hours before the surface can be treated with Instacoll Activator HA.

For Users Accustomed to Oil Size Gilding

When gilding with Instacoll, please note the following differences:

Oil Size

- Gilding after 3 or 12 hours
- Gold leaf applied carefully
- Gold leaf immediately released from the transfer paper
- Lightly pressed down with a gilder's brush
- Limited working time
- Several weeks of drying required to achieve weather resistance



Instacoll

- Apply Instacoll Base yellow or clear and allow to dry completely (1-2 hours, HA 24 hours)
- Apply activator with a cloth or brush and allow to dry (5-10 minutes)
- Apply gold leaf and rub firmly over the transfer paper with a cloth
- Remove transfer paper, press the gold leaf firmly once more, and dust off excess gold
- Then polish with an Instacoll Tissue
- Unlimited time between base application and activation
- After the activator has dried, gilding can be carried out for approximately 1 hour
- If adhesion decreases, apply activator again, allow to dry, and continue gilding
- Can be exposed outdoors immediately after applying the gold leaf under non-extreme weather conditions
(see „Weather Resistance“)

Tips

- For letters and decorative moldings, Instacoll can also be used without activator.
Apply, allow to dry for 1 hour, and then gild within approximately 1 hour.
- Use a synthetic hair brush (Toray).
- Use a suitable cloth to press down the gold leaf, e.g. the special Instacoll cloth.
- Activation can take place as little as 1-2 hours up to a year.
 - For large surfaces, it is advantageous to spray Instacoll.

*All stated drying and working times are based on a temperature of 59-68 °F and a relative humidity of 50-80%.

Worldwide, countless objects and monuments have been gilded with the modern, high-quality adhesive Kölner Instacoll System. Examples include Germany's largest gilded outdoor object, the Victory Column (Victoria) in Berlin, as well as the onion dome and the cross of the Russian Orthodox Memorial Church in Leipzig.

Additional Notes

For letters and decorative strips, gilding can be carried out immediately without using Instacoll Activator: Approximately 1 hour after application of Instacoll, the film remains tacky for a further hour. If this time is not sufficient for full-surface gilding, work can be continued using Instacoll Activator. We recommend using flat brushes with synthetic bristles. The suitable cloth is made of jersey fabric. It is soft and lint-free. (The most suitable cloth for polishing is the Kölner Instacoll Tissue, which guarantees scratch-free polishing, does not bind dirt, and is extremely durable.) Activation can be carried out as early as 1 hour after film formation, but also days, weeks, or months later. This is why Instacoll Base + Instacoll Activator is a safe system suitable for long-term gilding. After dilution, Instacoll can also be sprayed (dilution 5% with water). A low-pressure spray system with a nozzle size of 1 to 1.5 mm is required.

