

Kölner Instacoll system

Instacoll Base and activator

100ml-500ml-1000ml-4L

Highgloss gilding outdoors

Instacoll is a size for the attainment of a high gloss weather-resistant exterior and interior gilding. It can be used on nearly all substrates that have been prepared using standard accepted techniques to create weather-resistant surfaces. Do not use directly on glass outdoors. For indoor gilding it is sufficient to have or to prepare a non porous surface. Agate burnishing is not possible nor even necessary.

Before gilding *Instacoll* needs to be a completely dry film. This film will be activated with *Instacoll - Activator* prior to leaf application, preferably patend gold (transfer gold leaf). After activating the *Instacoll*-surface is now prepared that gold leaf adhere superbly with a maximum of burnish effect.

Application: Porous surfaces such as row wood, stone, plaster... should first be coated with a 15% water/*Instacoll* diluted solution. After ca. 30 minutes of drying this coating can be covered with a more generous, full strength layer of *Instacoll*. As mentioned above some materials in weathering need more than a simple pre-paint with *Instacoll* to achieve a weather resistant coating. - The rules of the craft of painting have to be strictly observed!

- Apply *Instacoll* with a soft brush (nylon) or a sprayer. Dilute with water 5% to 10% if spraying.
- One or two evenly applied coats are sufficient. The last coat should be completely dry before applying the next layer.
- Wait at least 1 hour after application the last *Instacoll* layer.
- Now you have about one hour "open time" to apply the gold leaf without using the Activator
- After the one hour "open time" you have to use the Activator. You can Activate again and again also after one day, two weeks, 6 months, also areas that has been activated can be activated again.

Activate

- Activate the dry and tackles surface of *Instacoll* with *Instacoll - Activator* using a cotton rag moistened with *Instacoll - Activator*. Rub the moistened rag across the *Instacoll* film up to a very thin and even size film results. This „film“ must be sparse that drying results in less than 2 minutes. Now you can apply gold leaf for another 50/60 minutes.
- Apply patend gold by pressing and rubbing a cotton ball on the back of transfer paper. Continues gilding require always activating the next plane. Overlapped activating onto a just laid leaf enables a seamless gilded surface.
Always let the Activator Size dry before applying the next leaf!
- After the entire surface is covered with metal, press again with the cotton ball the entire surface, especially the overlapping from the gold leaf. After this you can rub the surface with a cotton ball in one direction to get a high gloss gilding
- Faults can be filled using the above method or by applying *Instacoll - Activator* as described below.
Also you can use very easily the instacoll clear to improve your result when you are not satisfied

Loose leaf may applied directly if the gold is laid on the **wet** *Instacoll-Activator*. Therefore the size should be brushed thinly but repeatedly. Similar to traditional water gilding, the leaf is immediately laid on the wet surface. After the surface has dried sufficiently, the leaf should be pressed again onto the surface with cotton. The resulting shine is not so brilliant as with „dry gilding“ mentioned before.

Kölner KGGG System

Sealer 123 A

100ml-500ml-1000ml-4L

Impregnation agent

Sealer 123-A- is a concentrated water based sealer designed to prepare porous surfaces prior to application of *Kolner Burnishing Clay* and *Instaclay*. *Sealer 123-A-* also serves as a protective coating over leaf metals such as silver or composition leaf.

Application: Dilute *Sealer 123-A-* with tap water in a ratio of 1 : 3 to 1 : 5. Ratio of thinning depends on expecting absorbeny.

Apply thinned solution with a soft brush or sprayer. Quantity of application depends on porosity of surfaces. In case of extreme porosity (like plaster or some soft woods) a **wet-on-wet-** application is recommended.

If a glossy film is visible after drying, the solution was too concentrated or the number of layers too high! After drying only a satin sheen should be visible otherwise problems of adhesion or crackings of following layers of primer are expecting. Allow sealer to dry thoroughly before applying any additional layers of *Burnishing Clay* or *Instaclay*. Drying time is approximately ½ to 1 hour.

Additional uses: *Sealer 123-A-* can be used as protective coat over leaf metals which tend to oxidation like silver or composition gold. Because *Sealer 123-A-* films are not absolutely water resistant, this product is only designed for interior use. *Sealer 123-A-* should be thinned with 20% to 50% with tap water. To avoid too much airbubbles, work with water-moistened brush and apply solution slowly in one direction. One single layer is enough.

A colored overcoat serving as glaze will be made from *Sealer-123A-*, +10% water and a dyestuff solved in pure alcohol. As dyestuff may serve wood stain. Up to 25% of wood stain/ alcohol - solution should be added to *Sealer 123-A-* concentrate.

Kölner KGGG system

FOND

100ml-500ml-1000ml-4L

Burnishing Clay

Formulated for brush application, *Kolner Burnishing Clay* is a water-based burnishable gesso primer for gold, silver and composition leaf.

This product - available in 7 colors- is ideally suited for creation of water gilded and burnished frames, interior architectural elements and furniture ornaments, to achieve a traditional look for less effort.

Advantages:

- combines the properties of gesso and bole in one pre-mixed, brushable solution; available in several traditional bole colors as well as in white, which can be colored with *Mixol* tinting pastes.
- is applied at room temperature
- due to the high solids content, only three or four coats are needed
- there is no limit on burnishing, and even composition leaf can be burnished.
- dries to a hard finish, comparable to traditional gesso
- can be thinned with water and contains organic solvent < 3%.

Limitations:

- though water resistant, *Kölner Burnishing Clay* is not waterproof and will swell if soaked; therefore use only on interior surfaces (use *Instacoll* for exterior applications).
- susceptible to alkaline cleaners (e.g. containing ammonia, alcohol, acetone and other polar solvents).

Properties: mix ratio: To ensure greater storage stability, *Kolner Burnishing Clay* is a thixotropic material, and must therefore be stirred thoroughly before use to convert it from gel-like viscosity to a more free-flowing consistency, comparable to an alkyd paint. Depending upon the intended use, it can be thinned with up to 15% water, by volume.

Drying time: Being water based, the drying time will be affected by temperature and relative humidity. Recoating can occur after the entire surface has lightened in color even though it may still feel cold to the touch. Under normal conditions, small objects can be prepared for gilding in half a day.

Color: *Kolner Burnishing Clay* is available in the traditional bole colors. All colors can be intermixed. If additional tones are desired, use *Mixol* tints but only with *Sorte -C-* (white). But do not add more than 5% by weight, otherwise some properties may be affected.

Storage: There is a shelf-life of at least 1 year at room temperature. To ensure maximum shelf-life, never return leftover solutions to original

container! *Kolner Burnishing Clay* is freeze-thaw stable, which means that it will not be damaged should it have been frozen once during transport. Allow to come to room temperature, add a small amount of water and stir thoroughly.

Application: For satisfactory adhesion, surface must be dust, grease and corrosion free. Glossy surfaces should be sanded to ensure bonding. Substrates for *Burnishing Clay* include wood and wood products, plaster, compo, plastics and nonferrous metals. With some plastics and metals, a primer is recommended to assure good adhesion. Most porous surfaces require a sealant. *Einlaßgrund-P* was especially designed as sealant for *Kolner Burnishing Clay* and is recommended for all porous surfaces.

Thin material with 5% to a maximum of 15% with water. Using a good quality, soft bristle brush, apply the first coat liberally. After making sure that all surfaces are covered, smooth out brush strokes by going over entire surface with a thin coat, in the direction of the woodgrain. Await a lightening in color before applying a second coat. Where raised grain or drips are visible after the second coat has dried, sanding is recommended. Apply a total of 3 or 4 coats, allowing to dry in between coats.

Sanding: There is no substitute for careful sanding if blemish-free gilded surface is desired. After proper drying the surface can be sanded wet or dry. In either case high quality aluminium oxide- or silicon carbide paper should be used! Many prefer sanding wet, starting with 320 grit, moving to 400 and finishing with 600 grit, wiping off the slurry with a damp cloth in between. Avoid puddling of water! Final gentle polishing with alcohol moistened cloth will produce an absolutely smooth and well prepared surface. Whichever method chosen, do not try to speed the process by using cheap, coarse garnet paper or exerting excessive pressure. This only scratches the clay and removes too much of it, requiring recoating.

Leafing: Gild with leaf using *Colnasol Size*. Gilding is similar to traditional water gilding except that *Burnishing Clay* wets out less readily than traditional gesso - saturate your object section by section; re-wet immediately prior to laying the leaf, such that there is a thin film of *Colnasol Size* over the section.

Burnishing: The size under the leaf must be completely dry. Drying time depends on metal thickness, temperature and humidity. For more details about leafing and burnishing see directions of *Colnasol Gel Concentrate*.

Kölner KGGG system

Instaclay

4L-30L

Burnishing clay for spray application

Instaclay is a modification of *Kölner Burnishing Clay* and formulated for spray application. Corresponding to *Burnishing Clay* is this product a water-based burnishable gesso primer for gold, silver and composition leaf. *Instaclay* is ideally suited for the production of water gilded and burnished frames, interior architectural elements and furniture ornaments, to achieve a traditional look for less effort.

Advantages:

- combines the properties of gesso and bole in one premixed, sprayable solution: available in several traditional bole colors as well as in white, which can be colored with *Mixol* tinting pastes.
- is applied at room temperature
- most properly prepared surfaces can be coated in two passes, due to the high solids content of *Instaclay*
- flows out well when sprayed, minimizing finishing
- there is no time limit on burnishing, and even composition leaf can be burnished
- dries to a hard finish, comparable to traditional gesso, enabling clean chopping of frame lengths with proper equipment
- can be thinned with water and contains organic solvent < 3%.

Limitations:

- though water resistant, *Instaclay* is not waterproof and will swell if soaked; therefore use only on interior surfaces (use *Instacoll* for exterior applications)
- susceptible to alkaline cleaners (e.g. containing ammonia, alcohol, acetone and other polar solvents).

Properties: mix ratio: To ensure greater storage stability, *Instaclay* is a thixotropic material, and must therefore be stirred thoroughly before use to convert it from its gel-like viscosity to a more free-flowing consistency, comparable to an alkyd paint. Depending upon the intended use, it can be thinned with up to 15% water, by volume.

Drying time: Being water based, the drying time will be affected by temperature and relative humidity. Recoating can occur after the entire surface has lightened in color even though it may still feel cold to the touch. Under normal conditions, small objects can be prepared for gilding in half a day.

Color: *Instaclay* is available in the traditional bole colors. All colors can be intermixed. If additional tones are desired, use *Mixol* tints but only with *Sorte-C-* (white). Do not add more than 5% by weight, otherwise some properties may be affected.

Storage: *Instaclay* has a shelf-life of at least one year at normal room temperature. To ensure maximum shelf-life, never return leftover solutions to original container! *Instaclay* is freeze-thaw stable, which means that it will not be damaged should it have been frozen once during transport. Allow to come to room temperature slowly, add a small amount of water, and stir thoroughly.

Application: For satisfactory adhesion, surfaces must be dust, grease and corrosion free. Glossy surfaces should be sanded to ensure bonding. Substrates for *Instaclay* include wood and wood products, plaster, compo, plastics and nonferrous metals. With some plastics and metals, a primer is recommended to assure good adhesion. Most porous surfaces require a sealant. *Einlaßgrund-P* was especially designed as a sealant for *Kölner Burnishing Clay* and *Instaclay* and is recommended for all porous surfaces.

Spraying: for most effective spraying, use a high volume, low pressure unit with a nozzle opening of 1,5 mm. If using a high pressure unit, use at 2 - 5 atmospheres pressure, with a nozzle opening of 1,5 - 2,0 mm. Thin *Instaclay* with 10 - 15% water by volume and mix well but avoid foaming.

Spray the first coat on thickly enough to achieve a uniform flow-out. Relative to lacquers, *Instaclay* is sprayed on thickly. Hold nozzle parallel and close to object. Having a moistened brush at hand is helpful to smooth out any runs or drips, especially on objects having intricate ornamentation. Await a lightening in color over the entire surface before applying second coat. In most cases no sanding is required between coats. Where raised grain or drips are visible sanding is recommended (240grit). Remove any sanding dust before applying the next coat. Spray a second and, in most cases, final coat. Important once again is the achievement of a uniform flow-out of a thick spray film, while avoiding runs or drips. For complex moldings a soft moistened brush can once again be used to smooth out any sags or runs. If the wood grain is still visible another coat is required.

Sanding: There is no substitute for careful sanding if blemish-free gilded surfaces is desired. After proper drying the surface can be sanded wet or dry. In either case high quality aluminium oxid or wet or dry silicon carbide paper should be used. Many prefer sanding wet, starting with 320grit, moving to 400 and finishing with 600, wiping off the slurry with a damp cloth in between. Avoid puddling of water! Final gentle polishing with a alcohol moistened soft cloth will produce a smooth surface. Whichever method chosen, do not try to speed the process by using cheap, coarse garnet paper or exerting excessive

pressure. This only scratches the clay and removes too much of it, requiring recoating. Allow to dry fully before proceeding - even alcohol requires half an hour before it is completely evaporated.

Leafing: Gild with leaf using *Colnasol Size*. Gilding is similar to traditional water gilding except that *Instaclay* wets out less readily than traditional gesso - saturate your object section by section; rewet immediately prior to laying the leaf, such that there is a thin film of *Colnasol* over the entire section.

Burnishing: Before burnishing, the size under the leaf must be completely dry. The time will vary depending on degree of wetting, type and thickness of leaf used, and relative humidity. Test a small area before proceeding to avoid tearing the leaf.

For more details about leafing and burnishing see directions of *Colnasol Gel Concentrate*.

Safety: Always use standard safety precautions when spraying or sanding *Instaclay*. Ensure adequate ventilation and do not inhale dust or overspray.

Kölner KGGG system

Colnasol 10G

To produce 500ml size for watergilding

Colnasol Gel Concentrate is a quickly prepared size / adhesive available in concentrated tablet form. Dissolved in water, the gel tablets make a „gilder's liquor“ designed for the adhesion of gold, silver and Dutch metal* leaf to *Kolner Burnishing Clay* and *Instaclay*. This product is integral component of the *Kolner System*.

Each tablet (10 gram) will make ½ Liter of *Colnasol gel Size*.

In addition to use for water gilding, the gel solution may also be used as a mixing agent for *Kolner Reliefkitt* in full or half concentration.

Store solution and undissolved tablets in a refrigerator!

Directions: *Colnasol Gel Concentrate* must be dissolved in hot tap water not below 50°C (122°F) and not over 65°C (150°F).

- Drop one tablet into a clean glass container holding ½ Lt. hot water.
- Stir until completely dissolved. The solution should be the color of cloudy water.
- Cool at room temperature before using!
- Apply solution with a soft hair brush 2 or 3 times to wet the surface completely.
- Instantly place pieces of metal leaf onto wet surface similar to the method of traditional water gilding. Never use patent metals.
- If necessary, use a small brush to apply size to „holidays“ and patch with small pieces of leaf.

Depending on temperature, thickness of metal and humidity, let the surface dry for at least 2 hours; longer for silver and Dutch metal. Afterward, burnish the gilded surfaces with an agate in the usual manner but using a lighter touch than used with traditional clay.

* Dutch metal = composition metal needs a stronger solution: dissolve one tablet in 400 ml hot water.

Shelf-life of *Colnasol Gel Concentrat* is 9 month stored in a refrigerator.

Shelf-life of *Colnasol Gel Size* is several days, depending on temperature and hygienic circumstances.

Kölner Permacoll Size 100ml-500ml-1000ml-4L

Adhesive size for metal leaf

clear & red

Permanent contact adhesive size for metal leaf

Permacoll - Size offers far more flexibility than oil sizes with their long drying times and short working times.

Permacoll - Size dries within 15 to 30 minutes, depending upon thickness and remaining porosity of surface. Metal leaf can be applied hours or even days later.

This product is designed for the attainment of decorative metallic surfaces that are not exposed to the weather or excessive wear. It is not burnishable.

Permacoll - Size is recommended as an adhesive for metal leaf on all types of non-porous surfaces, smooth or textured.

Uses include the preparation of frames, the decoration of sets for theater, film, and window displays as well as architectural ornaments.

Porous surfaces such as plaster, stucco, wood and wood composites should first be impregnated with *Kolner Sealer 123-A-*, thinned 1 : 0,5 or 1 : 1 with water or *Kolner Einlaßgrund -P*. After the sealant is dry apply *Permacoll - Size*, unthinned, with a soft brush.

Non-porous or slightly porous surfaces that are dust and grease free, such as painted or laquered wood or plastics, can be covered immediately with *Permacoll - Size*. Should *Permacoll* tend to bead up, as may occur on some plastics, a drop of liquid detergent added to the size will generally alleviate the problem.

After the surface has dried - recognizable by a uniform sheen and saturated (darkened) appearance of the substrate - any type of metal leaf can be applied. Areas that appear mat or dull after drying should receive a second coat of *Permacoll - Size* before proceeding.

Once metal leaf has been applied in the usual way the surface should be rubbed lightly with cotton (be careful with genuine gold leaf!).

The degree of brilliance is dependant upon metal leaf thickness - the thickest metal foils yields the highest shine.

To protect thin leaf from mechanical abrasion and prevent oxidation of composition leaf apply a thin coat of acrylic lacquer (preferably water-based!). Test on samples! Clean-up can be done with water and soap before *Permacoll - Size* has dried.

Summerized instruction for „cracking effects“ with *Permacoll - Size*

- Apply *Permacoll - Size* with soft brush not too thin in one direction.
- After drying apply patent gold leaf or -silver leaf and rub metal surface with a ball of cotton in one direction.
- Brush on a solution of yellow dextrine, 50% in water above metal surface. Add a drop of liquid detergent to dextrine solution to prevent beading ups.
- Dextrine layer starts to crackle after drying. Cracking-width depends on thickness of layer and speed of drying. Accelerated drying and/or thicker layer makes wider cracks. Cracks are enclosing metal underneath.
- Dextrine may be washed away but has not to be washed generally.
- One may force the cracking lines with rubbing an oil paint in a contrast colour.
- It is possible to protect the whole piece with transparent acrylic coating (not water-based as long as dextrine layer underneath).

Kölner Miniatur 50 ml

Size for mirror gloss gilding on paper and flexible surfaces

Miniatur - Mirror Gloss - Paper Size is apart from *Instacoll* the first gilding size to provide a mirror like finish without burnishing with an agate burnisher. Genuine gold and silver leaf will achieve the highest degree of luster. The gilder should prefer patent leaf or roll gold.

Miniatur - Mirror Gloss is the ideal size for gilding illuminated manuscripts. The elastic nature of the size assures a long lasting gilded surface. The turning of illuminated pages will not cause the leaf to delaminate. *Miniatur - Mirror Gloss* contains Butylcarbitol. Make sure sufficient ventilation while working with this product.

The highest quality of acid free, heavy weight papers should be used as the base surface. Smooth surface papers are preferred to achieve a glass like finish. The textured surface of some papers will be visible in the gilding (what sometimes is desired).

If a smooth gilding is desired on textured paper, apply 4 coats of *Kölner Burnishing Clay* diluted with 15% to 20% water. Smooth the surface with alcohol before applying *Miniatur - Mirror Gloss*.

The Size can normally be applied directly to a smooth, dry, minimally absorbent substrate with a fine brush or a drawing pen. All porous surfaces should be tested for compatibility. E.g. coated papers may require sealing with a lacquer to prevent buckling.

Miniatur - Mirror Gloss will provide the best results when the size forms a slightly elevated bead on the surface. The size must be thoroughly dry before applying the leaf and it will remain open for gilding for up to the next 20 hours. Due to the long open time, overnight drying is advisable to assure the highest degree of luster. The minimal drying time is 3 to 5 hours depending on thickness of layer, temperature and humidity. Dutch metal needs a shorter drying time.

Apply patent leaf and roll leaf simply laying the leaf on the surface and rubbing the paper backing with a ball of cotton. Holidays can be filled with the same procedure.

After Finishing gilding, press over the surface with a cotton ball to ensure uniform adhesion and then „burnish“ with a fresh ball of cotton in one direction.

Loose leaf should be laid in the same manner, using the tissue paper from the books of gold to protect the leaf when rubbing with cotton.

Old Coatings of *Miniatur - Mirror Gloss* are reactible for gilding by using *Instacoll - Activator*.

To prevent oxidation of composition leaf and silver apply a thin coat of acrylic lacquer, preferably water based.

Clean brushes with soap and water.

Always test all materials and procedures before attempting to perform the work on the final object!

Kölner Miniatur Ink 5ml-30ml

Ink size for gilding on paper

Miniatur - Ink has been designed as a supplement to *Miniatur - Mirror Gloss*. Finest lines can be made with a variety of drawing instruments laid with gold or silver leaf. In combination with *Miniatur - Mirror Gloss* nearly all calligraphy works are possible. The metal shine is mirror like after burnishing with cotton wool.

The gilding work has permanent adhesion on the elastic film. Breaking or flaking on paper surfaces are not to expected.

Use *Miniatur - ink* as delivered with nibs, artist brushes, fountain pens or the Art Pen (by Rotring). There is no problem to keep *Miniatur - Ink* for several days in fountain pens. In case of agglutinations the use of water would be necessary to clean the nib and the tank.

Thoroughly cleaning is necessary after drawing work. We recommend to fill the emptied and clean tank of fountain pens with water until next use.

Application: Smooth surface papers should be preferred. Normally a single application is sufficient. Only on more absorbent papers a second or third application would be necessary. Wider areas should be better filled with *Miniatur - Mirror Gloss*. Important is the achievement of a sensible glossy line after drying!

Drying time depends on thickness of application and adsorbency of surface.

The average application dries in less than half an hour. The open time for gilding with patent leaf (gold or silver- not composition leaf) is 3 hours after film formation.

Apply patent leaf with a ball of cotton wool pressing from the back side to transfer paper. Also it is possible to use a paper wiper (drawing aid) following exactly the small lines of *Miniatur* film. Holidays can be filled with the same procedure.

Burnishing takes place after complete covering with metal using the same ball of cotton polishing in one direction.

Kölner Permacoll P 100ml-500ml-1000ml

Adhesive size for powdergold

Permacoll-Powdergold Base is an acrylic size, dissolved in water and glycol. It is intended to be used with powder gold, and can be burnished to yield a semi-gloss sheen. It is for interior use only, and has a shelf life of one year. If necessary, it can be thinned with water should size become viscous. *Permacoll-Powdergold Base* is resistant to saponification, allowing its use on dry interior stucco containing lime.

The size contains butylcarbitol. Ensure adequate ventilation during use. Higher vapor concentrations can be hazardous to health. The product is freeze/thaw stabile. Dried films can be removed with alcohol.

Product Description

Permacoll-Powdergold Base is designed to be used on complex moldings and ornamentation with undercutting that could heretofore not be watergilded and burnished because of labor and material costs. While the degree of burnish achievable with this size is not comparable to water gilding, it is superior to oil gilding and often considered ideal for interior architectural ornamentation.

It is easier to gild with powder gold than with leaf and in many cases may be a viable pure gold alternative to imitations (bronze and other powders or metal leaf).

Directions

All materials to be gilded - most suitable wood or plaster - should first be coated with three layers of *Kolner Burnishing Clay* (see product sheet *Kolner Burnishing Clay*). After polishing, apply one coat of *Permacoll Powdergold Base*. Use a soft brush and avoid puddling of the size! Depending upon thickness of the coating and ambient conditions, allow to come to the tacky film for 15 to 60 minutes. Apply powder gold with a soft brush to the tacky film. Excess powder gold should be collected for reuse.

The high tack phase has a limited time frame (!). treat larger objects in sections.

Generally the surface can be burnished any time after 24 hours.

Kölner Ceramic size 50 ml

Kt-5 – Kt 5 hv Gel

Size for mirror gloss gilding on china and ceramics

Formulated for repairing of small injuries of gilded china or ceramics.

KT 5 / KT 5hv is a water based non burnish able size for patent gold.

KT - 5 hv should be applied with a small spatula or surface knife. The metal shine is mirror like after polishing with cotton wool. KT 5 / KT 5hv can be intermixed and thinned with water. Dry films may be removed with ammonia and water.

Application: Injuries of china can be filled directly with KT 5 / KT 5hv. More porous surfaces of ceramics require a sealant made of KT 5 and a small amount of water. The use of KT 5hv reduces the number of layers to fill up the defect. Drying time depends on thickness of application.

Make sure that all layers are absolutely dry before gilding!

Apply patent leaf with a ball of cotton wool pressing from the back side of transfer paper. Also it is possible to use a paper wiper (drawing aid) following the small part of KT 5 / KT 5hv films. Holidays can be filled with the same procedure.

Burnishing takes place after applying the gold. Take the same ball of cotton and polish in one direction.

Gilded surfaces are grip- and waterresistant but sceptible to alkaline cleaners and washing with hot water.

A top sealant (e.g. acrylic-water-based like *Sealer 123-A-*) improves the scratch resistency.

KT-5 contents Butylcarbitol. Make sure sufficient ventilation while working with this product.

Kölner Reliefkitt 150 g – 400 g – 750 g

Material for preparing carved or moldes objects of plaster and wood

Kolner Reliefkitt is a dry powder-blend of inorganic cement, filler and natural-organic binders. Shelf life is a minimum of 2 years if stored in a cool and dry area. Keep container always closed! Avoid breathing dust of product or sanding by product!

When liquid added, *Reliefkitt - Powder* becomes a plastic material for preparing carved or moldes objects and for filling cracks.

Directions:

Upon opening container thoroughly mix dry powder. Porous surfaces should be partially sealed. A weak solution of *Kolner Sealer 123-A-* is recommended. Place a small amount of powder into a container and add water. Use as little liquid as possible. The optimal ratio to get a plastic consistency is 100g powder : 30g liquid. Mix thoroughly with a steel spatula till a putty like consistency is obtained. Place mixture in hand and knead with fingers till air bubbles are eliminated. Dusting fingers with powder will facilitate kneading. Place material on object and mold with tools. Wetting tools and material with water will assure stability of molded object, the absence of cracks and a smooth surface finish. If a longer working time is required use *Colnasol Gel Size*, prepared with ½ to 1 Lt. water according to package directions, as the mixing agent.

Reliefkitt can also be used to prepare ornaments using molds made from animal glue or silicon. The molds should be filled with material of putty like consistency and the back can smoothed with water. Wait till completely dry before glueing to object.

Wait one hour with water as mixing agent, two hours with *Colnasol Size* as mixing agent, before shaping with a sharp tool. Wait 24 hours or when competely dry before sanding. Drying time can be reduced by the addition of heat. Drying time varies dependent on temperature, humitivity and thickness of object. Dry fine sanding will produce a semi-gloss finish ready for gilding. Small areas can be gilded with *Colnasol Size* directly on the *Reliefkitt*-object. Large areas should be coated with *Kolner Burnishing Clay* prior to gilding.

Always test material on sample piece before attempting to complete the project!

Despite extensive experience and constant observation of surface prepared/leafed with above product the recommendations herein are non-binding, as use and method of application, as well as the proper preparation of substrate used is beyond our influence. (Zutphen-Holland may 2002)