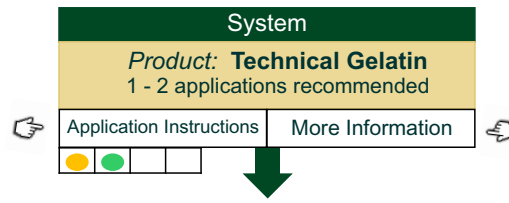


# Applications Methods

## Step 1 : Preparing the Wood



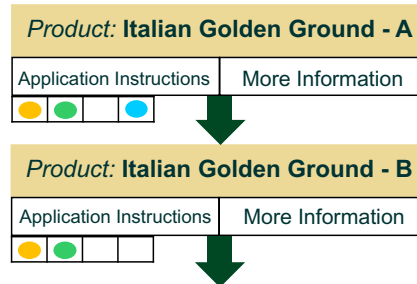
Seal the Wood: Forming a barrier



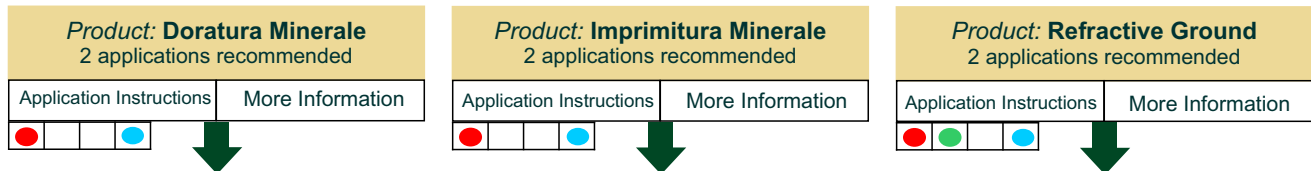
## Step 2 : Grounds: Colouring and protecting the wood



To colour the Wood fibers



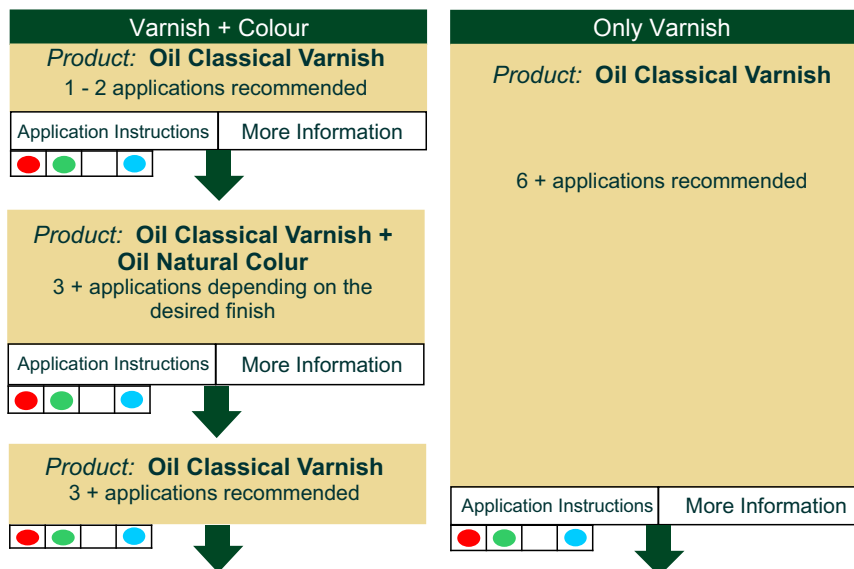
Fill the pores: Choose the next ground Doratura Minerale , Imprimitura Minerale or Refractive ground



## Step 3 : Varnishing & Colouring



Oil Classical Varnishes & Oil Natural Colours : Choose to apply varnish + Colour or Varnish Only



## Step 4 : Finishing the Instrument



Polishing & Cleaning: After 3 + weeks of varnishing



Application method

- By Hand
- By Brush
- By Sponge

Drying method

- UV Light



## TECHNICAL GELATIN

### Application instructions

*-Product for professional use -*

- 1.- Dissolve 2-3 gr of Technical Gelatin in 100 ml of warm water (40-45 °C). The solution must be fresh for use.
- 2.- Apply using a sponge or brush. Spread the product evenly on the surface for varnishing.
- 3.- Special conditions for drying are not needed. It is possible to use an hair-dryer to accelerate the process.
- 4.- Before applying a second layer, rub down the surface with a clean linen cloth to make it softer.
- 5.- When the last layer is totally dry, rub again with the cloth. If an excess of product exists you will be able to see a shiny film on the wood. Clean this area again with a wet cloth and let it dry.

#### CAUTION

Wear vinyl or nitril gloves. High humidity or too thick an application may increase drying time. Use in a well-ventilated workspace.

Keep out of the reach of children. Petroleum distillate.

Do not ingest and avoid any contact with skin or eyes. Vapor harmful to skin and respiratory tract. Do not dispose of this product into the environment.



## 1.- Sealing the wood. Protein insulation

The main goal of this treatment is to homogenize the wood porosity and form a barrier in order to obtain a more regular and controlled penetration of the grounds. This step is important to avoid colour patches from the uneven penetration of products applied after this.

This step consists of the application of a solution containing one or more protein compounds on the clean wood. These compounds may be from animal origin (glue, gelatine, albumin, casein, egg yolk, etc.) or vegetable origin (gum arabic, tragacanth, cherry tree gum, sarcocollin, fig tree sap, etc)

OLD WOOD suggests isolating the wood by applying a 2-3% gelatine water solution. For spruce, apply two or three coats of this solution; for maple, one or two are enough.

The Technical Gelatine is a pure form of glue made from delicate animal tissues and which is refined with greater care and purity than ordinary glue. It is sold in thin colourless sheets or in powder form. From a chemical viewpoint, the complex proteins making up the glues can be divided into two classes.

- Chondroitin: Responsible for the glues' adhesive properties.
- Glucosamine: Responsible for their gelatinous nature.

Gelatine contains more glucosamine and less chondroitin than glue. Its properties are more gellative than adherent. Gelatine, glue or casein will degrade at a temperature of above 53° C, changing colour and losing a large part of their adherent properties.

## TECHNICAL GELATIN

### Application instructions

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## ITALIAN GOLDEN GROUND A + B

### Application Instructions

- Professional use -

#### 1.- IGG – A

- Test the product on a piece of maple and spruce wood used for the instrument.
- Take  $\pm 8 - 9$ cc. (violin),  $\pm 10$ cc. (viola) or  $\pm 30 - 32$ cc. (cello) with a syringe to avoid contaminating the product.
- Spread the product evenly over the surface of the instrument using a sponge, lengthwise and in a circular motion. Do not apply pressure to the sponge because this could remove the insulating layer.
- Once dried, place the instrument in the UV chamber or in sun light for 4-8 hours. Exposure time depends on the level of ultraviolet light in the chamber, which must include between 6 and 10 UV-A and UV-B lamps. The more time inside the more intensive the colour.
- If a more intensive colour is desired, a second layer of IGG A could be applied in the same way as with the first layer.

#### 2.- IGG – B

- Take  $\pm 8 - 9$ cc. (violin),  $\pm 10$ cc. (viola) or  $\pm 30 - 32$ cc. (cello) with a syringe to avoid contaminating the product.
- Spread the product evenly over the surface of the instrument using a sponge, lengthwise and in a circular motion. Do not apply pressure on the sponge because this could remove the insulating layer.
- Let it dry for about 6-10 hours. It doesn't need UV light exposure to dry.

#### CAUTION

Wear vinyl or nitril gloves. High humidity or too thick an application may increase drying time. Use in a well-ventilated workspace.

Keep out of the reach of children. Petroleum distillate.

Do not ingest and avoid any contact with skin or eyes. Vapor harmful to skin and respiratory tract. Do not dispose of this product into the environment



## 2. Colouring and Protecting the Wood

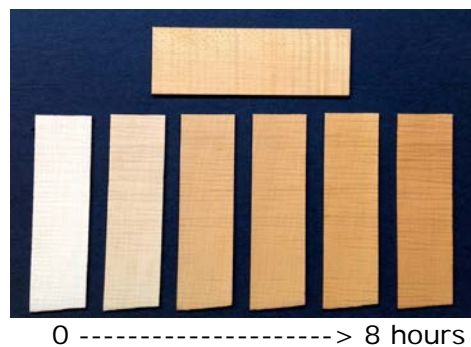
### Italian Golden Ground A+B

#### 2.1.- Wood fibres: Colouring and Protecting

Italian Golden Ground A+B is a water based product which develops an aged wood-look in the Wood and also introduces a golden-orange colour which enhances the grain and the annual rings.

In addition, this product protects the wood against the degradation.

Italian Golden Ground A+B includes two water based products. These are products which are easy to apply (by sponge or brush). Product "A" develops the colour in the wood under UV light (6-8 hours):



The component "B" application technique is similar to component "A" but "B" doesn't need UV light to be dried.



(See application instructions)



## **Mineral Grounds**

Doratura Minerale – Imprimiura Minerale

### **Application Instructions**

*- Professional use -*

- 1.- Stir the product with a stick until total homogenation. In the same or another container, add some drops of Special Oil (the product which is provided with the mineral grounds) and continue stirring in order to mix the oil with the product into a homogeneous paste. Adding Old Wood Special Oil to mineral grounds will make the application easier. Do not add more oil than this ratio: Oil/Mineral Ground = 1/4.
- 2.- Use vinyl or nitrile gloves. These avoid the components being absorbed through the skin when applying by hand.
- 3.- Apply small deposits of product and spreading it by hand in lengthwise and circular motion. Applying a slight pressure on the wood fibres while trying not to leave any excess.
- 4.- Let it dry under UV light, natural or artificial (although UV chamber is recommended). The drying time depends on light intensity, humidity, temperature, etc. At least 8-10 hours are necessary under UV lighting.
- 5.- Once the first layer has dried, apply a second one following the same instructions. Excellent results are obtained by applying two thin homogeneous layers.
- 6.- Once the varnish is completely dry, gently wipe the surface with a linen or cotton cloth dampened with odourless kerosene (be sure to wear gloves) in order to remove any remaining mineral particles that may have risen through the surface of the previous coat. Then allow to dry.

#### **CAUTION**

Wear vinyl or nitril gloves. High humidity or too thick an application may increase drying time. Use in a well-ventilated workspace.

Keep out of the reach of children. Petroleum distillate.

Do not ingest and avoid any contact with skin or eyes. Vapor harmful to skin and respiratory tract. Do not dispose of this product into the environment



## REFRACTIVE GROUND

### **Application Instructions** *- Professional use -*

1.- The Refractive Ground is used as a sealer before oil varnishes are applied.

Avoids an absorption excess of varnish into the wood which could negatively interfere in the acoustic quality of the instrument.

2.- Refractive Ground can be applied by hand or by brush.

3.- To assure a thin layer spread by hand. Refractive Ground penetrates the wood quickly. It is also possible to spread the product by brush. Be careful not to apply too thick layers or excessively. Drying problems could be occur because of this.

4.- Let it dry under UV light, artificial or natural (are both ok, although UV chamber is recommended). At least 8-10 hours under UV light is needed.

5.- A second layer is recommendable using the same procedure as first layer. At least 8-10 hours under UV light is needed.

#### CAUTION

Wear vinyl or nitril gloves. High humidity or too thick an application may increase drying time. Use in a well-ventilated workspace.

Keep out of the reach of children. Petroleum distillate.

Do not ingest and avoid any contact with skin or eyes. Vapor harmful to skin and respiratory tract. Do not dispose of this product into the environment

[Escriba aqui]



### 3.- Filling the pores

#### Imprimitura Minerale – Doratura Minerale – Refractive Ground

In this step, the main goal is to obtain an even and ready surface for varnishing.

These products penetrate the wood. They are recommended to develop the best results by using our oil varnishes after them. These grounds provide some benefits such as:

- Intensifying the grain and annual rings, enhancing the wood's natural beauty and dichroism effect.
- Guaranteeing good adherence between the grounds, oil varnishes and wood.
- They avoiding the penetration of oil varnishes into the pores which is very important when using coloured varnishes or using colour pastes.

#### MINERAL GROUNDS: Imprimitura Minerale – Doratura Minerale

These products include several mineral particles which produce high refraction properties in the wood. They also increase the protection of the wood.

Their oily and resinous components guarantee good penetration and good subsection in the wood and an excellent compatibility and adhesion with the oil varnishes.

*Imprimitura Minerale* is a transparent ground. It should be applied by hand (use nitrile gloves) in a very thin layer. Usually twice is enough to obtain an even surface.

The product can be mixed with a small quantity of Special Oil to make the spreading of the product much easier.

It is essential that the layer is totally dry before applying the next layer.

Each layer needs, at least, 8-10 hours to dry under UV light.

*Doratura Minerale* is a mineral ground which introduces a golden-yellow colour into the wood. The hand-made mineral particles have been pre-treated to develop its warm and transparent colour.

Its use and application method is similar to *Imprimitura Minerale*.

#### REFRACTIVE GROUND

*Refractive Ground* is a transparent and pale coloured compound which provides a refraction index similar to wood.

It has been formulated using high purity terpenic polymers which enhance the light refraction. It also increases the protection of the wood against external agents.

This ground can be applied by hand or by brush. Always apply in very thin layers, twice is usually enough. It easily penetrates the wood, introducing a unique lightness.

For each layer applied it is necessary to expose under UV light for, at least, 8 – 10 hours in order to dry completely.

(See application instructions)

[Escriba aqui]







## **Oil Classical Varnishes**

Classical Amber Varnish - Brescia Brown Varnish - Cremona Varnish

### **Application Instructions**

*- Professional use -*

- 1.- Apply the varnish like any usual oil varnish
- 2.- Only apply on clean and oil-free surfaces.
- 3.- These varnishes can be applied by hand or by brush.
- 4.- In order to obtain the best results thin layers should be applied. To improve the application the varnish can be diluted with OW-Thinner according to your dilution experience.
- 5.- Application of thick layers could provide the contrary expected result and damage the following layers. In this way the drying time will also be increased.
- 6.- Once the product has been applied let the surface dry under direct sunlight or in a UV chamber. It is recommended to check the intensity and the drying time until it has completely dried (a drying time of  $\pm 8$  hours is expected but could be different depending on the light intensity and on the thickness applied)
- 7.- Allow 12-24 hours before the next application.
- 8.- A failed drying can provide the contrary expected result and/or surface defaults.
- 9.- The final coat of varnish can be polished with OW Polish and/or Italian Cream, according to the usual oil varnish method. Make sure that the surface has dried properly. Allow extra time before the final polish. .

#### CAUTION

Wear vinyl or nitril gloves. High humidity or too thick an application may increase drying time. Use in a well-ventilated workspace.

Keep out of the reach of children. Petroleum distillate.

Do not ingest and avoid any contact with skin or eyes. Vapor harmful to skin and respiratory tract. Do not dispose of this product into the environment

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## **Oil Classical Varnishes**

Classical Amber Varnish - Brescia Brown Varnish - Cremona Varnish

### Varnishing process

#### 3.1.- The Varnish

Varnish is a transparent coating which main goals are to protect the wood and enhance its beauty. Old Wood varnishes are oil classical varnishes, all having optimal properties which are based on classical formulas made with Baltic amber as the main resinous component. Old Wood varnishes are made using traditional "recipès" and traditional raw materials, excluding the solvent.

At Old Wood we only use non-flammable and aromatic-free solvents; the safe working conditions and environment improve substantially while using these new solvents instead the traditional ones.

All Old Wood Varnishes are tested to guarantee that they have the best properties as well as providing long-lasting films.

#### APPLICATION:

Old Wood varnishes can be applied by hand (using nitrile gloves) or by brush. The best results are obtained by spreading by hand very thin layers, as a multilayer system. Depending on the application method and on the solvent used, these varnishes must be diluted approx. 5-15%. Never use oil as a dilutant.

If you don't want to introduce pigments into the varnish, 5 to 8 thin layers applied by hand are enough to finish the instrument (or less if you apply by brush).

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## Oil Natural Colours

### Application Instructions

*- Professional use -*

1.- Take a small quantity of Oil Natural Colour or Colours. Mix them with your finger (using gloves) in a clean container. When you have the desired colour, add oil varnish 1/1 ratio approximately and mix until a homogeneous colour is obtained. The Classical Amber Varnish is optimum to this procedure but other oil varnishes can be used.

2.- Before varnishing with colours, we recommend testing the colour by spreading it on a piece of transparent plastic or on the wood. We can then evaluate the final approximate colour on the instrument.

3.- It is recommendable to spread the products by hand, using vinyl or nitrile gloves. Apply thin and homogeneous layers as a glaze. You can use a brush for the scroll and also to remove the excess product in hard to reach areas.

It is recommendable to remove the excess product by cleaning the gloves with a clean lint free cloth during the spreading process. Use the same process with the brushes.

It is also possible to apply the mixed colours and varnish by brush. In this case, more varnish will be required and a small quantity of solvent will be necessary.

4.- Let each layer dry under UV light for at least 8-10 hours (applying thin layers by hand. More time will be needed if applying by brush). When the layer is totally dried, rub it down with a linen cloth (or micromesh paper if needed) before spreading the next layer, in order to remove or reduce the dust particles embedded in the film during the process.

5.- It is recommendable to apply a layer of varnish between the layers with colours.

6.- Sanding between layers will improve the adherence properties and the formation of the (using a linen cloth or soft micromesh paper to the layers without pigments).

#### Precautions for use

Use vinyl gloves  
Good ventilation is recommended  
Do not dispose into the environment  
Do not ingest. Avoid contact with skin and eyes  
Once opened, keep tightly closed in a cool place





## Varnishing and Colouring

### Oil Natural Colour

#### 3.2.- Varnishing

Throughout time, violin makers have made their own colour pastes by milling natural pigments by hand with vegetable oils. But this is a long and labourious process.

Inspired by the Classical Masters' colours, Old Wood have developed some fine pastes which are both homogeneous and stable. They are made with natural and traditional pigments and also with high quality and natural oils.

These pastes are made to be mixed with the Oil Varnishes and can create an infinite range of finishes and colours. The craftsmen are then able to create a personal colour for each instrument.

Old Wood Oil Natural Colours are pastes ready to mix with the oil varnishes.

#### **APPLICATION:**

The application method for Oil Natural Colours is both simple and easy.

It is possible to work with one colour or by mixing two or more colours. When the luthier has decided the colour or mix of colours, is then necessary to add the oil varnish (1/1 approx. depending on the colour).

It is always necessary to apply one or two layers of varnish before using the colour pastes.

As a general rule, the mix of colour-varnish is applied by hand (use nitrile gloves) as a thin *glaze*. Using a brush is recommended for the scroll and special areas; you can also use a brush to remove excess product in hard-to-reach areas.

Each layer must be dried under UV light for at least 8-10 hours. It is recommendable applying alternative thin layers of varnish (without colours).

This process must be repeated 3 or 4 times to reach the desired colour.

The instrument must be finished with 2 or 3 layers of varnish without pigments.

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Example work steps:

- Varnish (1 or 2 layers)
- Colour glaze → Varnish glaze
- Colour glaze → Varnish glaze
- Colour glaze → Varnish glaze
- Varnish (2 or 3 layers)

The colours can also be applied by brush, but in this case more varnish should be used to make a more fluid solution.

Also a few drops of solvent is recommended. It is possible to apply several thin layers but you must always finish the instrument only with varnish (without pigments).

Sanding between layers is recommendable during the varnishing process, especially the layers that are without pigments. We recommend using micromesh paper.



### Finishing the instrument

#### **Old Wood Polishes and Italian Cream**

##### **5.- Final polishing and cleaning.**

To reach the optimum finish of the instrument, Old Wood recommends softly rubbing down the varnish.

Old Wood Polish eliminates the small imperfections on the surface and provides a long lasting and shiny finish.

Before sanding the final varnish film, it is very important to be sure that the film has completely dried and has hardened. If not, a light turbid aspect could occur.

OW Polish must be applied with a clean lint free cloth, this is better if it is natural tissue. Put a small quantity of the product on the cloth and spread the polish with circular movements while applying a small amount of pressure. It is important to be very careful in this process, especially on the edges and on the scroll, avoiding removing the varnish.

When finishing, clean the surface with a clean cloth to remove any deposits of the product from the instrument.

Then, it is recommendable to polish the surface with the Italian Cream. Rub the product with a smooth clean cloth, then clean the surface with a clean cloth.

Italian Cream enhances the natural shine of the varnish and provides a silky touch. This product can be used for the musician for the usual cleaning and maintenance of the instrument.

Old Wood also provides the Ebony Polish for ebony wood. It is used as Old Wood Polish (but finishing the process with the Italian Cream it is not recommended).

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