

Eugene Holtier Violin Varnish System

Usage Guidelines

Gold Color Wood Primer & Reflective Rosin Ground

The Gold Color Wood Primer and Reflective Rosin Ground are a way to prepare and treat the wood of a musical instrument prior to coats of varnish. The more attractive this layer, the more effective any varnish will be in enhancing the natural beauty of the wood.

Before application of Gold Color Wood Primer, wood should be carefully prepared and ready for the primer and rosin ground coats. Many makers tan the instrument in a humidified UV box or exposure to direct sunlight in climates that aren't too extreme and damaging to the instrument.

Carefully scrape and finish all surfaces with equisetum (horsetail) or something equivalent to this classic technique. The primer has a water base and will raise the grain considerably, so if less texture is desired be sure to pre-wet the wood and flatten the texture with the horse tail finishing once it's dry.

Can be used under oil or spirit-based varnishes.

Use caution and minimize exposure to fumes and direct contact with the skin. Since these are chemicals which if used incorrectly can be harmful, be sure to follow standard safety precautions. Protect the eyes, skin and lungs.

Gold Color Wood Primer Application

1. There are various ways the Primer can be applied, but an efficient technique is using small, rectangular pieces of household sponge. A 1" square or slightly rectangular piece works well, since it will easily fit in the ribs. When applying to the instrument, the amount going on the wood can be controlled by how much force is used on the sponge. A small, soft bristle brush should be available to apply primer to areas on the scroll, peg box and f-holes and a larger one can be used on the body if preferred.
2. Mineral spirits or high-quality turpentine can be added to the spruce just prior to Primer application to reduce the "wicking effect" on the end grain. This can cause an uneven, darker area from the primer. Use great caution to apply coats evenly and not to "reload" areas that appear dryer. Each application of the primer makes the wood darker so be sure the even coats are dry between applications. After the first coat you can expose to UV light for several hours to see how even and intense the color is becoming. Additional coats can be made until you are satisfied with the result. Be sure to expose to UV with additional coatings to check color intensity.

3. 2-3 coats of Gold Color Wood Primer are sufficient to get a desired, rich golden color. It's not necessary to apply additional coats of mineral spirits, etc. but still be careful to apply even coats, avoiding lap marks. Rubbing or brushing at a 90-degree angle will help blend any lap marks. This gives the wood a realistic look of aged wood which will augment the beauty of the Reflective Rosin Ground and varnishes applied later.

Reflective Rosin Ground Application

1. The Reflective Rosin Ground is a clear liquid which has very low viscosity and brushes easily. A medium-soft bristle brush works best. One which is $\frac{3}{4}$ "-1.0" works well for violins and violas, and a larger one for cellos. The synthetic, clear acrylic handle brushes are popular and easy to find at an artist supply. To avoid too heavy a coat, after brushing on the Rosin Ground dry the brush with a lint-free material and even out the coating with this dryer brush. Blend in the areas where there may be extra thick overlapping of the rosin ground.
2. Allow the instrument to dry sufficiently (preferably overnight in the UV drying box). When dry the wood should still look very porous even though it will be "sealed" from colored varnishes soaking in too aggressively during subsequent coatings. A second coat can be applied if it looks insufficient. If this film coating gets too thick, filling the pores and showing a very shiny surface, turpentine can be used on a lint-free cloth to remove the excess material. If you are antiquing the instrument a second coat may be replaced with a protein barrier coating, such as egg white which has been whipped and allowed to settle in a bowl.

Ground Application

1. Mineral Ground Application
 - a. First Coat. Mix clear varnish with pumice using a glass muller to incorporate the powder into the varnish. Apply it on the instrument using a stiff brush for scroll and rib joint with the plates, and spread it evenly with a 3M™ white pad on the large surfaces. Let it sit 10-15 minutes, then rub the excess using square pads of dock fabric. Remove the excess ground carefully from scroll crevices and rib plate joint using a dry, stiff brush. Rub the instrument with the dock fabric until you get a nice, burnished look. Let it dry overnight in the UV box.
 - b. Second Coat. Second coat can be applied following the first ground coat procedure or you can add brown varnish in the mixture to start building color on the instrument. Let it dry overnight in the UV box.

2. Ground Application with No Mineral

- a. The ground for spruce (top). Rub clear varnish onto spruce top in a circular motion.
- b. The ground for maple (back). Mix clear varnish with brown varnish and test the intensity on a sample of the same wood prepared the same way as the instrument. Adjust the intensity of the color based on the contrast desired on the maple flame. As on the top, rub a thin coat of the color mixture in a circular motion.
- c. Let dry overnight in the UV box. Repeat the same steps for the second coat. Use a very thin layer application.

Varnish Application

1. For the first coat, use brown varnish. The coat should be thin, applied on the scroll and rib joint with a synthetic stiff brush (acrylic paint brush). For larger surfaces, use fingers in a circular motion or tap with your palm. You may also use the printing method with a piece of prosthetic foam. Run your fingers across the grain on the spruce top to accentuate the winter growth. Let it dry overnight in the UV box.
2. Follow the same procedure for subsequent coats of varnish, eventually mixing clear varnish into the brown if you think the instrument is getting too dark. A coat or two of clear varnish applied at the end will build film and depth on the surface. Generally, the working time for the varnish at room temperature is about 4-5 hours.
3. Adding Color. Eugene Holtier Varnish has an intense, transparent and beautiful brown and requires no additional color. However, you may find the need to add color in order to achieve certain desired shades. Rosinate is highly recommended for its indisputably superior quality. Solvents such as Lavender Spike Oil must be used with rosinatate to dissolve it and maintain the clarity of the varnish. High quality pigments and oil paint such as those made by Kremer Pigments and Winsor & Newton can also be used. Be careful, as different pigments/oil paints vary in opacity and translucency. Generally, the most transparent colors should be used for violin varnish application. Winsor & Newton's Alizarin Crimson, Madder Brown and Indian Yellow are good choices to compliment the color of the varnish.
4. Finishing. The finishing should be done after a few days to allow the varnish to cure. To finish, mix Kremer Tripoli Rotten Stone Light (#599930) with mineral oil. Apply the mixture on a soft cloth and rub the varnish lightly using a circular motion. Buff it with a dry, clean, soft cotton cloth.

These are general guidelines. We are sure that in time you will find other methods to use Eugene Holtier Varnish and obtain excellent results. These instructions available for download in pdf format at <https://www.oldworldtonewood.com/eh-varnishusage.pdf>

Helpful Tips

- Varnish viscosity can change with temperature. To decrease viscosity of varnish, use
- warm water to gently heat the bottled varnish.
- In the event you have a weak UV box, we recommend using our catalyst, which dries uniformly. Experiment with how much catalyst you add, usually a few drops is enough. Too much catalyst can compromise the varnish.
- Catalysts are toxic!!! Always wear gloves when you add a catalyst to the varnish.
- When a bottle cap is hard to open, warm it with a hair dryer. It will help loosen up the cap.
- Use odorless Turpenoid® or any petroleum-based solvent to clean varnish or applicators.
- Storage – Keep the varnish bottles away from heat, flame, and direct sun. Seal tightly when not in use. Store in a dark, cool place.