

Mixing Traditional Japanning

The biggest challenge in preparing the japanning mixture is to limit the appearance of undissolved minerals in the finish. The method here focuses on dissolving the gilsonite in the turpentine prior to the addition of boiled linseed oil and filtering the japanning to further reduce undissolved material. You can bypass filtering the japanning by increasing the time for the mix to settle out. If not filtering, I recommend allowing the mix to settle for at least 48 hours, preferably a week prior to use. If filtering, 24 hours to settle is fine.



The thickness or consistency of the final japanning mixture is especially important to success. All the descriptions here refer to mixtures at room temperature in the mid 70° f (23° c). The mixture will be notably thicker at cooler temperatures. For this reason, when mixing the japanning, try to keep all ingredients and interim mixtures in this temperature range. As with any finish that cures via oxidation, the shelf life can be greatly increased by limiting exposure to oxygen. As you use up the product, I recommend either adding inert argon gas (available as wine preserver in an aerosol can) to the can before sealing it or adding clean marbles to raise the level of the product and reduce the amount of oxygen in the can. Generally, japanning will be usable for at least 6 months with some care.

The general ratio of ingredients by volume is 40% turpentine, 40% asphaltum and 20% boiled linseed oil. Do not use this ratio if measuring by weight as you will have too much asphaltum. Your can of Small Quantity Gilsonite (Asphaltum) Powder 200 mesh, obtained from aPlaneLife.us, contains 10 teaspoons of gilsonite/asphaltum. Add 8 teaspoons of turpentine to the can and stir for about 2 minutes. The mixture will be extremely thin! Do not worry. It will thicken considerably as the gilsonite dissolves.

Let the can sit for 1-2 hours and re-stir making sure to scrape any undissolved gilsonite from the bottom of the can. The mixture should be very thick at this point, like cool honey or almost jelly. Add very small amounts of turpentine (1/4 teaspoon at most), stir thoroughly and allow to rest for 30 minutes. Repeat this process until you have the consistency you want for your final product (like corn syrup).

Add 5 teaspoons of boiled linseed oil and stir thoroughly. After adding the boiled linseed oil, let the mixture sit overnight at 72°f or warmer.

Once you have the desired consistency, you can either let the mixture rest for three days to a week 72°f or warmer (longer the better) or filter the mixture for more immediate use (see the section titled **Filtering Japanning**). This resting period allow any undissolved asphaltum to settle to the bottom of the mixture. With the small quantity of japanning mix, I recommend letting the mix rest as filtering will result in loss of about 25% of the mix.

If in doubt, a slightly thin mixture at room temperature is better than slightly thick. Thick japanning will not self-level and leave an unacceptable lumpy finish. Overly thin japanning simply requires more coats to achieve the desired appearance.

You have completed mixing the japanning. Prior to use the japanning needs to be stored at room temperature and left undisturbed for at least 48 hours, preferable one week prior to use. This allows the insoluble minerals in the asphaltum time to settle to the bottom of the container. Do not stir, shake, or tip the japanning! If this occurs, allow the product to settle again prior to use. Do not dip your brush to the bottom of the can or you will pick up undissolved asphaltum which leaves a poor finish.

Filtering Japanning (optional)

Filtering your japanning mixture is not required but does allow more immediate use of the product and may help to limit contaminants in the finish. Paint filters are not useful for filtering japanning. Gilsonite, is typically screened through a 200-mesh screen. This removed particles larger than 74 microns or 74µm. Most paint filters only remove particles larger than 150µm, thus the paint filter will not remove any of the insoluble contaminants. Finer paint filters prevent the japanning mixture from flowing through the finer mesh. To filter japanning, the mixture must be forced through, under pressure, the filter media. 400 count cotton (typical bedding) will generally filter out particles as small as 40µm making this an effective and easy to obtain filter media. I recommend viewing the video on filtering japanning found at: <https://aplanelife.us/videos> as describing the process is less clear.

Wearing rubber gloves, take a 12" x 12" square of 400 thread count cotton fabric (good quality bed sheets are generally 400 thread count), and line a 4" funnel. Pour your mixture into the filter allowing it to settle into the neck of the upright funnel. Scrape all the japanning into the filter. Gather the corners of the cloth together forming a ball of japanning at the bottom. Place the mixture into a plastic sandwich bag that you have previously cut the corner off leaving a ½" opening. Just as a baker uses an icing piping bag, trap the ball of japanning in the cloth with one hand, twist the cloth forcing the ball to tighten. The japanning will begin to flow through the cloth and out the hole cut in sandwich bag into your clean container. Continue to twist the cloth until all the mixture has been filtered and you are left with a marble size amount of undissolved material in the cloth. Dispose of safely as oil-soaked cotton can self-ignite.

You can immediately use this mixture with generally good results. Allow it to settle at room temperature for 24 hours for a more conservative approach.

A three-part video series from a recent japanning seminar I taught is available for viewing at:

<https://aplanelife.us/videos>

If you have questions, please contact me at aPlaneLife@comcast.net.

Enjoy restoring your antique tool!

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