



A guide to *kintsugi*

■ Necessary items

- *Hon-urushi* ————— Lacquers such as *ki-urushi*, *kuro-urushi*, *bengara-urushi*, *shiro-urushi*
- *Tono-ko* and *jino-ko* ————— Powders used for bases
- *Kokuso-ko* ————— Japanese zelkova tree powder; used for filling large gaps
- *Kin-pun* and *gin-pun* ————— Gold and silver powders in the form of *keshi-fun* or *maru-fun*
- *Komugi-ko* ————— Used to make *mugi-urushi* (wheat lacquer)
- Turpentine oil ————— An oil refined from pine trees. Used for dissolving lacquer and cleaning
- Rapeseed oil ————— Used to clean and store brushes
- Ethanol ————— Used to wipe oil
- *Mawata* ————— Silk floss used for sprinkling *keshi-fun* powder
- *Kebo* ————— A brush for wiping and sprinkling gold powder
- *Koshigami* ————— Paper used to filter lacquer, to remove dust
- *Joban* ————— A work board; as an alternative a glass sheet, lacquered wooden board, or ceramic palette can be used
- *Hera* ————— A spatula for lacquer work, made of *hinoki*, bamboo, or plastic
- *Fude* ————— A selection of brushes suited to the surface worked on, e.g., *maki-e* brush, fine linebrush, round brush
- Waterproof sandpaper and *tokusa* — Used for polishing coating and undercoating surfaces (approx. #400 to #1,000)
 (rough horsetail)
- *Ishiko* ————— Stone dust used to polish surfaces sprinkled with metal powder
- Bamboo skewers and chopsticks ————— Sharpened and used for fine detail work
- Rags ————— Used T-shirts or other pieces of cotton cloth for wiping and cleaning
- Masking tape ————— Used for fixing broken objects and protection against contamination
- Clear wrap plastic ————— Used for storing lacquer
- *Urushi-buro* (lacquer cabinet) ————— Wooden shelves for placing objects on when curing lacquer;
 as an alternative fortypically small *kintsugi* items, a carboard or wooden box can be used
- Plastic gloves
- Small knives and chisels for carving, cutters, rasp



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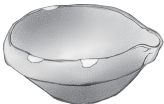


■ Cautions

- If lacquer comes into direct contact with the skin, it can cause an allergic reaction, resulting in a severe skin rash, so make sure to wear plastic gloves to avoid touching lacquer with your hands.
- If lacquer comes into contact with your skin, wipe the affected area of your skin with a cloth wetted with turpentine and then thoroughly wash the area clean using soap.

■ Storing lacquer

- The lacquer inside the tube will harden if air accumulates, so make sure you squeeze the air out of the tube between uses.
- Leaving lacquer in high temperature conditions, such as near the window during the summer, will render it ineffective and unable to cure properly. If the room temperature exceeds 30 degrees, store the lacquer in the fridge or a cool place.
- If some lacquer has set inside the lid of the tube and made it difficult to open, use some pliers to squeeze the sides of the lid and break up some of the lacquer underneath, then carefully twist it open. Be careful not to force the lid open as it may cause the tube to tear.

■ The process / *Keshi-fun* (fine powder) finish

	I Fixing	II Gluing	<i>Kokuso-urushi</i>	III · IV <i>Shitaji</i> (repeated <i>Ji</i> or <i>I</i> and <i>Sabi-urushi</i>)	V · VI Coating	VII Final coating and gold <i>maki-e</i> (sprinkling gold powder)	
Ware Broken piece 	①	②		③ ④	⑤ ⑥	⑦	End
Kake Chip 	①		(②)	Repeat the foundation and fill in the gaps until there are no more depressions. foundation and fill in the gaps until there are no more depressions.			
Hotsure Glaze peeling or small chips 	①			②	③ ④	⑤	
Nyu Cracks 	①			Fill any small gaps or holes with <i>Sabi-urushi</i> (IV)			



A guide to *kintsugi*

■ Use filter paper (filter paper is sold separately)



If there are some impurities or dust of hardened lacquer in the lacquer, use a filter paper to strain the lacquer.

- ① Cut a piece of filter paper about 15 cm square, fold it into three equal parts, and put out the required amount of lacquer in the center. Take into account the amount of lacquer that the paper will absorb and the amount used to clean the brush.
- ② Fold the filter paper in half and fold it round from the edges.
- ③ Hold both ends of the filter paper and twist it to squeeze out the lacquer and filter the lacquer.

■ *Kintsugi* on wooden products

The basic process of *kintsugi* is the same when you want to *kintsugi* a wooden product. Since wood absorbs lacquer well and the lacquer sticks to the surface, work with care to avoid excess overflow and other stains.

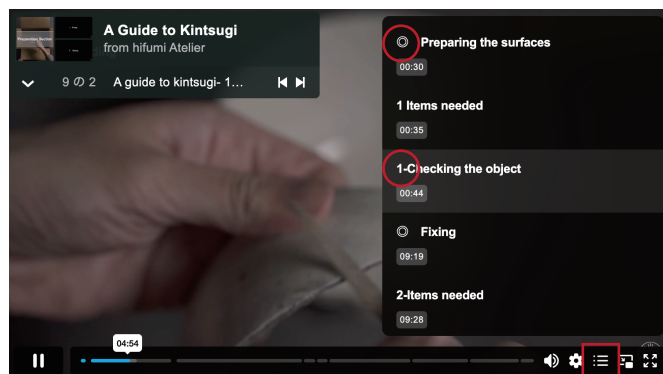
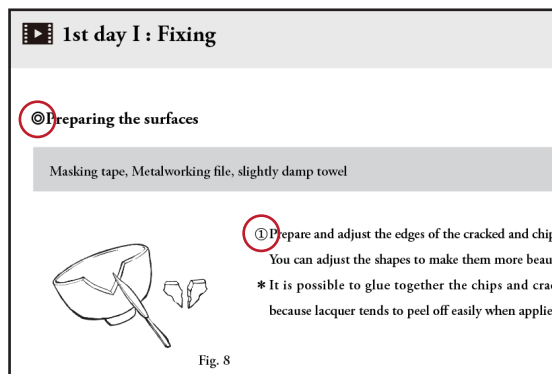
Also, the surface of the wood is soft and easily scratched by a knife, so polish and scrape the surface carefully. If you are concerned, it is a good idea to protect the areas you do not want to shave with masking tape.

■ How to use the videos

Use the fast-forward function to adjust the playback speed of the video and check the "overall flow" and "main points" of the work process (playback time: 30-60 minutes per video).

The video shows the *kintsugi* process at normal speed so you can gain insight into the duration of the process and follow along at various steps.

Use the table of contents function to replay the part of the process you want to see and check the main points, unclear points and details.



The instruction manual and the video numbers correspond.

table of contents function



▶ Preparation

◎ Making an *urushi-buro* (lacquer cabinet)

An *urushi-buro* or *urushi* box is a storage space designed to maintain the environment necessary for the curing of the applied *urushi* lacquer.

Urushi undergoes a **chemical reaction**, where one of its components, *urushiol*, reacts upon **exposure to air**, resulting in its hardening. The environment in which the chemical reaction occurs typically has a **temperature of 20 to 25 degrees Celsius** and a **humidity level of around 70 to 75 percent**. That is why we need to maintain the optimal environment in the *urushi-buro* so that the *urushi* can harden.

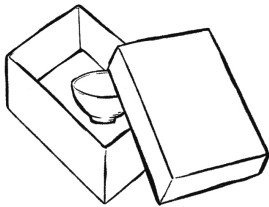


Fig. 1

- Moisten the inside of a wooden or cardboard box that can be covered with a lid to use as an *urushi-buro* for curing lacquer. If the moisture dries very easily, try to maintain the humidity for about one day, for example by covering the box with a plastic sheet. As a yardstick for optimum curing of the lacquer, try to keep the humidity and temperature inside the box at around 70-75% RH and 20-24. Pay attention to the location and environment where you keep your *urushi-buro*. (The position can be adjusted according to the process.) (Fig. 1)

◎ Cover the base (*kodai*) of the object

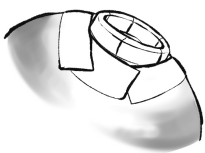


Fig. 2

- If lacquer stains any of the unglazed parts of the object it will be impossible to remove the stains, so you may wish to cover such areas with masking tape to protect them. (Fig. 2)



Preparation

◎Making tools

◎Hera (lacquer spatula)

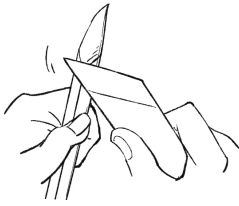


Fig. 3

- Sharpen the tip of the bamboo spatula.(Fig. 3)

◎Joban (working board)

Plastic wrap, Tightly squeezed damp towel, Work board, Spatula, Disposable gloves, Masking tape,
Waterproof sandpaper #400, Rag, Chopsticks, Wooden board, Turpentine oil, *Ki-urushi*

※ Please be cautious of urushi allergies and wear disposable gloves while working.

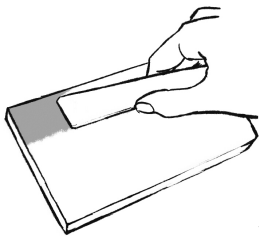


Fig. 4

- As a *joban*, you can use a glass plate, ceramic board, or wooden board. It is used as a palette for mixing and preparing materials.
- When using a wooden work board as a *joban*, first lacquer the board.

- ① Sand down the surface of the wooden board with sandpaper.
- ② Apply *ki-urushi* to the board using your spatula. (Fig. 4)

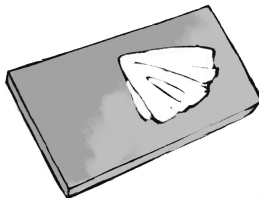


Fig. 5

- ③ Wipe the board clean with a rag or cloth until there is no more stickiness. (Fig. 5)

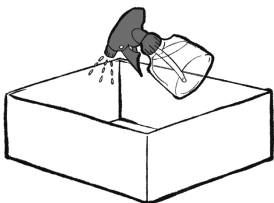


Fig. 10

- ④ Once you have done this over the whole surface, **leave the board to cure for one day in your *urushi-buro*.** (Fig.10)



Preparation

◎Handling tools

◎Preparing a new brush

- Mix a brush in some turpentine oil to loosen up the tip.

◎How to clean brushes

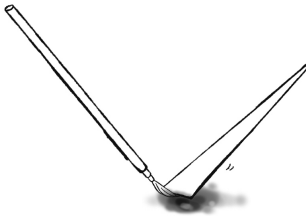


Fig. 6

- After using brushes, clean them using **canola oil or other non-drying oil**, then store them. (Fig. 6)
- When using brushes, dip the ends of the brush hairs into lacquer and then remove the oil-lacquer mixture with a spatula.

◎Cleaning the *joban* (work board)

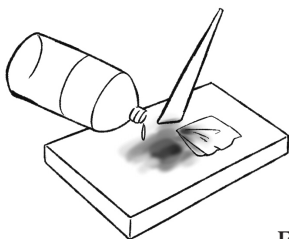


Fig. 7

- As a *joban*, you can use a glass plate, ceramic board, or wooden board. It is used as a palette for mixing and preparing materials.
- Since lacquer starts hardening immediately when exposed to air, always clean your spatula and *joban* frequently using turpentine oil. (Fig. 7)



1st day I : Fixing

◎Preparing the surfaces

Masking tape, Metalworking file, slightly damp towel

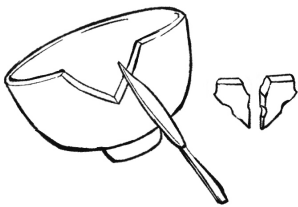


Fig. 8

① Prepare and adjust the edges of the cracked and chipped parts of the object using a rasp.

You can adjust the shapes to make them more beautiful. (Fig. 8)

* It is possible to glue together the chips and cracks as they are, but care is needed because lacquer tends to peel off easily when applied over glaze.

◎Fixing

Plastic wrap, Wide masking tape, *Ki-urushi*, Design cutter, Turpentine oil, *Joban*, Canola oil, Brush, Spatula, Rags or Tissues

※ Please be cautious of urushi allergies and wear disposable gloves while working.

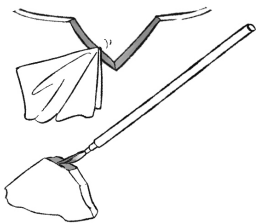


Fig. 9

② Apply *ki-urushi* to the broken surfaces, then wipe off the excess with a cloth or tissue before the lacquer dries. (Fig. 9)

* For white ceramics such as *kohiki* and for *kannyu* (crazing) ceramics, using white lacquer helps to avoid black stains.

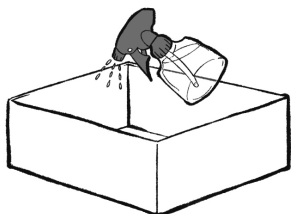


Fig. 10

③ Place the object into a moistened *urushi-buro* and leave to cure for one day. (Fig. 10)



▶ 2nd day II : Gluing

◎ Making *mugi-urushi*

Turpentine oil, Ki-urushi, Stored ki-urushi, Design cutter, Water, Wheat flour, Spoon, Spatula, Rags, Joban

※ Please be cautious of urushi allergies and wear disposable gloves while working.



Fig. 11

- ① Drop a small amount of water into some wheat flour and knead with a spatula to form a glue.

Measurement by eye Wheat flour : Water = 3 : 2

Knead patiently until the mixture is sticky and lumpy. (Fig. 11)

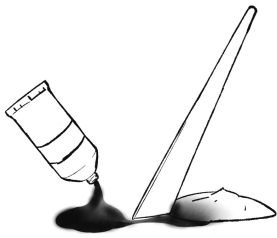


Fig. 12

- ② Mix a small amount of *ki-urushi* into the glue (1:1)(Fig. 12)
- * The proportions will vary according to the type and size of the object to be repaired and also the kind of damage.

◎ Applying *mugi-urushi*

Turpentine oil, Rags, Prepared *mugi-urushi*, *Joban*, Masking tape, Carved bamboo spatula, Spatula, Newspaper or other protective covering

※ Please be cautious of urushi allergies and wear disposable gloves while working.



Fig. 13

- ③ Use a bamboo spatula to apply *mugi-urushi* thinly to the cracked surface. (Fig. 13)

Leave until it is semi-dried.

- * This takes about 10 to 20 minutes depending on the weather and the composition of the materials.
- * Take care, because if left to dry completely adhesion will be poor.



2nd day II : Gluing

◎Applying *mugi-urushi*

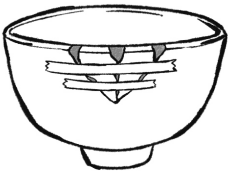


Fig. 14

- ④ Use your judgment to decide when the *mugi-urushi* is **semi-dried** according to the stickiness of its surface. Then placing the broken fragments in position, press hard to effect adhesion.

Combine the fragments firmly so that the applied *mugi-urushi* oozes out from the contacting surfaces. Use masking tape to fix the fragments so that their weight does not cause them to become detached. (Fig. 14)

- * If the *mugi-urushi* oozes out and becomes dirty, clean it properly using a cloth dipped in turpentine oil. You can also shave off the excess using a knife once the *mugi-urushi* has hardened.

◎Curing (drying and hardening)

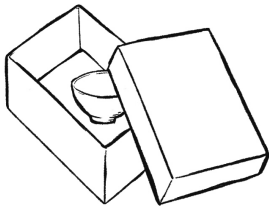


Fig. 1

- ⑤ Leave the object, which is now glued together with *mugi-urushi*, **for at least 10 days in the box without moistening**, to enable slow curing. (Fig. 1)

- * More time may be necessary for curing, depending on the object's shape, thickness, and the composition of materials.



▶ Supplementary instructions : Repairing larger fragments with *kokuso-urushi*

◎ *Kokuso-urushi*

Kokuso-urushi is a putty-like substance made by mixing *Kokuso* powder with *mugi-urushi*, and it is used for repairing large damages.

■ Main uses of *Kokuso urushi*

- Filling in large chips
- Filling in large holes or gaps
- Repairing areas where there are no fragments due to damage.

■ Drying Point

→ **Placing your work in a dry *urushi-buro***

Kokuso-urushi can be applied thicker and used to repair larger parts compared to other base materials. Therefore, it is important to take your time and thoroughly dry it to ensure it hardens completely, reaching the core.

After sanding the *Kokuso urushi*, we proceed with the application of the *shitaji* process (III・IV), followed by the coating process (V・VI), and then the finishing touches (VII).

◎ *Kokuso-urushi* 1st day — Fixing

Plastic wrap, Wide masking tape, *Ki-urushi*, Design cutter, Turpentine oil, *Joban*, Canola oil, Brushes, Spatula, Rags

※ Please be cautious of urushi allergies and wear disposable gloves while working.

① Applying *ki-urushi*

Wipe off the *ki-urushi*

② Placing your work in a humidified *urushi-buro*

◎ *Kokuso-urushi* 2nd day — Using *Kokuso-urushi*

Rags, *Kokuso* powder, Spatula, Bamboo Spatula, Turpentine oil, *Joban*, *Mugi-urushi* you made.

※ Please be cautious of urushi allergies and wear disposable gloves while working.

① Kneading *Kokuso urushi*

② Applying *Kokuso-urushi*

③ Placing your work in a dry *urushi-buro*



Supplementary instructions : Repairing larger fragments with *kokuso-urushi*

◎*Kokuso-urushi* 3rd day — Sanding and applying the *shitaji*

Design cutter, Small knife, Spatula, *Joban*, Prepared base (*ji* or *sabi-urushi*), Turpentine oil, Plastic wrap, Rags.

※ Please be cautious of urushi allergies and wear disposable gloves while working.

- ① Trim off the excess
- ② *Sabi-urushi* application
- ③ Placing your work in a humidified *urushi-buro*

◎Main types of *shitaji*

The *shitaji* is a urushi paste used to fill in small holes, grooves, and chips.

It is made by mixing water and *ki-urushi* with *jinoko* or *tonoko* powder.

Jinoko is a coarse powder, making it suitable for filling deep grooves and is often used for the *shitaji*.

Tonoko is a fine powder, allowing it to smooth out fine cracks, and is thus used as a finishing *shitaji* (*sabi-urushi*).

Jinoko + Water + *Ki-urushi* → Called *Ji*

Tonoko + Water + *Ki-urushi* → Called *Sabi-urushi*

The choice of *shitaji* depends on the condition of cracks and unevenness.

Big ←-----→ Small
Kokuso-urushi > *Ji* > *Sabi-urushi*

If there is a large piece missing without any fragments, sometimes *Kokuso-urushi*, made using *Kokuso* powder is used.

* Please refer to the guide for instructions on 'Supplementary instructions: Repairing larger fragments with *kokuso-urushi*'. (P.10)



▶ 3rd day III: *Shitaji* (applying lacquer foundation)

◎Smoothing

Craft knife, Carving knife (round blade), Design cutter

※ Please be cautious of urushi allergies and wear disposable gloves while working.

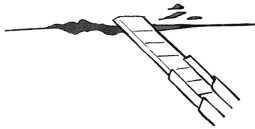


Fig. 18

①Once the object is cured, use a small knife or chisel to shave off any excess *mugi-urushi* that has oozed or bulged out.(Fig. 18)

* Sometimes with porcelain ware, a broken fragment can be clasped using a bulging piece of *mugi-urushi*, without scraping it off.

◎Making the spatula

Wood sticks, Bamboo skewers, Small knife, File for dry sanding ※Sandpaper or waterproof paper (#400), Pencil, Wooden board

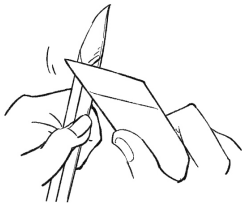


Fig. 3

② Sharpen some bamboo skewers and chopsticks to make a small spatula that will fit inside the damaged part of the object.(Fig. 3)

◎Kneading the *shitaji*

Rags, Turpentine oil, *Jinoko* powder, *Ki-urushi*, Water, Spoon, *Joban*, Spatula The small spatula you made.

※ Please be cautious of urushi allergies and wear disposable gloves while working.



Fig. 15

③ Add several drops of water to *jino-ko* or *tono-ko* powder and mix together with a spatula. (Fig. 15)



3rd day III: *Shitaji* (applying lacquer foundation)

◎Kneading the *shitaji*

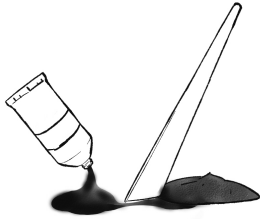


Fig. 16

- ④ Add a volume of *ki-urushi* equal to the volume of added water and then mix quickly to achieve consistency. (Fig. 16)

Measurement by eye *Jinoko* : Water : *Ki-urushi* = 2 : 0.8 : 1

If there is too little or too much lacquer in the *shitaji*, the result will not be good.

Adding too much water causes the *shitaji* to become soft, making it difficult to apply with a spatula. However, water is essential for the curing of the lacquer, so judging the right quantity of water when adding it to the powder is vital.

Decide the right quantity of water to mix with the powder and the right composition of lacquer by judging the optimum hardness of *shitaji* for easy application with a spatula.

* If there is too much lacquer, only the surface dries while the inside remains mushy.

If this happens the lacquer is unlikely to dry properly.

Choose to use *jino-ko* or *tono-ko* based on the depth of the fragments and damage.

If the damage is deep, start with a *shitaji* made with *jino-ko* and then repeatedly cure and polish. Finally, finish off using *sabi-urushi*, made with *tono-ko*.

◎Applying *shitaji*

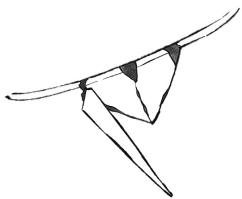


Fig. 17

- ⑤ Once a good *shitaji* is formed, use a spatula to take a suitable amount of the *shitaji* to fill the gaps or holes in the object. (Fig. 17)

* Since the *shitaji* solidifies quickly, it is important to work briskly.

* If the *shitaji* is applied too thickly, the inside does not dry easily, so aim for a thickness of no more than **1mm** with each coat.

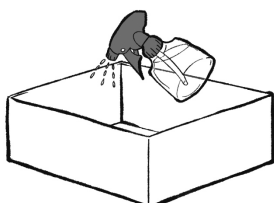


Fig. 10

- ⑥ Place the object in the *urushi-buro* and leave to cure for one day. (Fig. 10)



4th day IV : *Shitaji* (applying lacquer foundation)

◎Smoothing

Scissors, Bamboo skewers, Design cutter or round blade, Rags, Waterproof sandpaper #400, Water, Double-sided tape

※ Please be cautious of urushi allergies and wear disposable gloves while working.

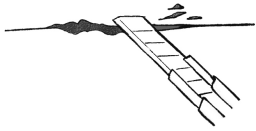


Fig. 18

- ①Shave any large bulging parts of the hardened *shitaji* using a small knife, taking care to avoid causing any cracks. (Fig. 18)

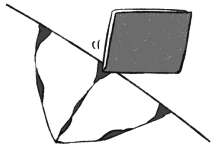


Fig. 19

- ②Smooth the surface using a whetstone or waterproof sandpaper. (Fig. 19)

◎Kneading *sabi-urushi*

Joban, Spatula, Turpentine oil, *Tonoko*, *Ki-urushi*, Design cutter, Water, spoon, Rags, Masking tape

※ Please be cautious of urushi allergies and wear disposable gloves while working.



Fig. 20

- ③Crush lumps of *tono-ko* powder using a spatula.
 ④Mix a few drops of water with the *tono-ko* using a spatula. (Fig. 20)

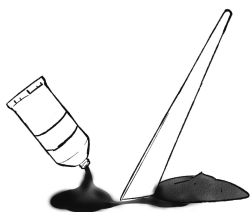


Fig. 21

- ⑤Add a volume of *ki-urushi* equal to the volume of added water and mix quickly with a spatula until the mixture homogeneous. (Fig. 21)

* When the right volume of *ki-urushi* is added, the *shitaji* appears slightly glossy.

Measurement by eye **Tonoko : Water : Ki-urushi = 2 : 0.9 : 1**



4th day IV : *Shitaji* (applying lacquer foundation)

◎Applying *shitaji* (*sabi-urushi*)

Rags, Turpentine oil, *Joban*, *Sabi-urushi*, Spatula, Small spatula you made.

※ Please be cautious of urushi allergies and wear disposable gloves while working.

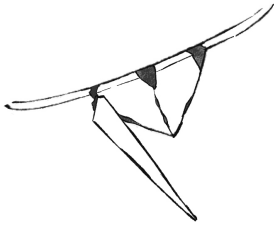


Fig. 22

⑥ Take a suitable amount of *sabi-urushi* using a spatula and fill the chips, gaps, and small irregularities further with *sabi-urushi*, to create a smooth *shitaji* surface. (Fig. 22)

* Since the *sabi-urushi* tends to shrink when it dries, it is a good idea to apply a little extra.

* Be careful not to apply it more thickly than **1mm**.

⑦ Leave to cure overnight by leaving the object in the moistened *urushi-buro*.



5th day V : Applying the first coat

◎Smoothing

Newspaper or similar covering, Cloth, Scissors, Double-sided tape, *Tokusa*, Bamboo skewer,
 Waterproof sandpaper #600, Design cutter or carving knife, Ethanol, Water

※ Please be cautious of urushi allergies and wear disposable gloves while working.

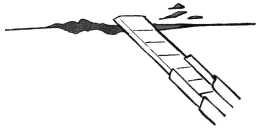


Fig. 18

- ①Checking the hardning polish the hardened *sabi-urushi*.Shave the bulging parts of the undercoat with a small knife, taking care to avoid causing any cracks.(Fig. 18)

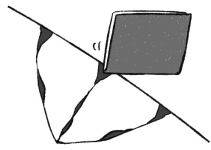


Fig. 19

- ②Create a smooth finish by polishing the whole of the undercoat surface using a whetstone or waterproof sandpaper (approx. #600), or *tokusa* (rough horsetail). (Fig. 19, 25)

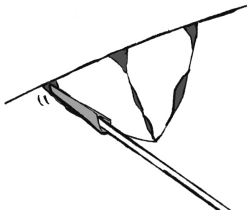


Fig. 25

- ③Wipe the parts to be coated with ethanol to remove oiliness.
 * It is fine to wash the parts with soapy water, but make sure to dry them properly before applying lacquer.
 * If any oil from your hands or saliva, etc., comes in contact with the surface to be coated, the lacquer will be repelled and unable to dry properly.

◎Fixing the *sabi-urushi*

Tissue paper, Rags, Turpentine oil, Brushes for applying urushi, *Ki-urushi*, Masking tape, Canola oil, Spatula, *Joban*

※ Please be cautious of urushi allergies and wear disposable gloves while working.

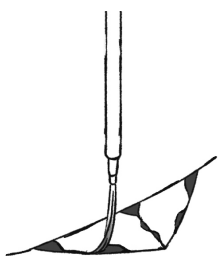


Fig. 27

- ④Apply *ki-urushi* over the polished undercoat and wipe it with a tissue or other suitable material.
 * Apply some downward pressure when wiping, taking care to avoid spreading lacquer beyond where you want it to go.



5th day V : Applying the first coat

◎Applying the first coat

Rags, Turpentine oil, *Bengara-urushi*, Canola oil, Spatula, Masking tape, Brush for applying urushi, Small spatula you made, *Joban*

※ Please be cautious of urushi allergies and wear disposable gloves while working.

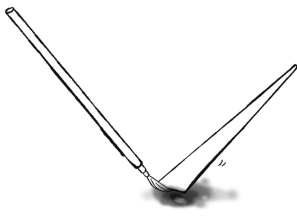


Fig. 26

⑤ Take out the urushi to be used for the first coat from the tube and thin it to a suitable viscosity using turpentine oil or camphor oil.

⑥ Since brushes contain oil, wash them with urushi. Put some urushi on the *joban*, dip the end of the brush in the lacquer. Now use a spatula to push the urushi, which is now mixed with oil, out of the brush and dispose of it. (Fig. 26)

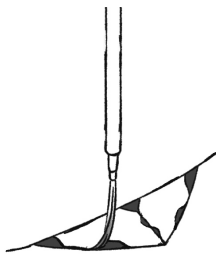


Fig. 27

⑦ Neatly align the ends of the brush and apply lacquer thinly and uniformly to the foundation.
* To avoid the formation of puddles and unevenness, apply brush strokes in all directions to ensure the lacquer is applied uniformly. (Fig. 27)

⑧ After finishing, place the object in a moistened *urushi-buro* and leave to cure overnight.
* The lacquer dries slowly in the course of one day, so when painting vertical surfaces, make sure that lacquer does not drip down.

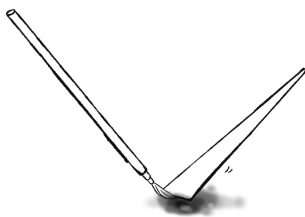


Fig. 6

⑨ After using brushes, clean them using canola oil or other non-drying oil, then store them. (Fig. 6)

■ About shrinking of urushi lacquer

Be careful not to create pools of urushi when applying it. If it accumulates, it can cause the underside of the coating to become wrinkled like a blister during hardening.

This is called **shrinkage**, and even after hardening for a day, the inside may not be completely dry.

To prevent urushi shrinkage, **it's important not to apply too much urushi at once and to paint with a uniform thickness.**

Since turpentine oil evaporates, it's okay to add more if the urushi starts to become sticky from losing it. It's important to apply the urushi thinly and evenly to prevent shrinkage.



6th day VI : Applying the middle coat

◎Smoothing

News paper, Scissors, Water, Double-sided tape, Waterproof sandpaper #800, Bamboo skewer, *Tokusa*, Design cutter, Rags, Ethanol

※ Please be cautious of urushi allergies and wear disposable gloves while working.

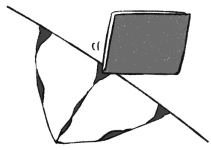


Fig. 19

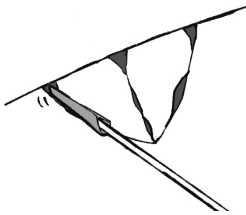


Fig. 25

- ① Polish the first coat surface using a whetstone, charcoal, waterproof sandpaper (approx. #800), or *tokusa* (rough horsetail). (See Fig. 19, 25)
- ② Wipe the parts to be coated with ethanol to remove oiliness.

◎Applying the second coat

Rags, Urushi for coating such as *Bengara-urushi*, Spatula, Canola oil, Turpentine oil, Masking tape, *Joban*, Brushes

※ Please be cautious of urushi allergies and wear disposable gloves while working.

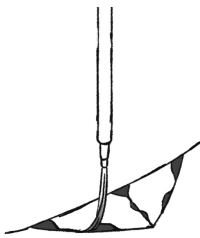


Fig. 28

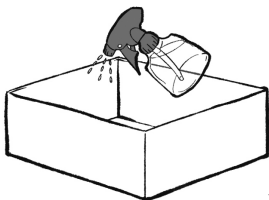


Fig. 10

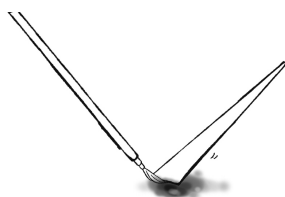


Fig. 6

- ③ Take out the urushi to be used for the middle coat from the tube and thin it to a suitable viscosity using turpentine oil or camphor oil. Wash the brush with lacquer and apply the middle coat over the first coat. (Fig. 28)
- * Using a different color to the final coating makes it easier to distinguish between coats when applying the final coating.
- ④ Place the object in moistened *urushi-buro* and leave it to cure overnight. (Fig. 10)
- ⑤ After using brushes, clean them using canola oil or other non-drying oil, then store them. (Fig. 6)



7th day VII : Applying the final coat and *kinpun-maki* (sprinkling gold powder)

◎Smoothing

Scissors, Water, Double-sided Tape, Waterproof sandpaper #1000, Bamboo skewer, *Tokusa*, Design cutter, Ethanoll, Rags.

※ Please be cautious of urushi allergies and wear disposable gloves while working.

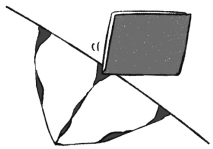


Fig. 19

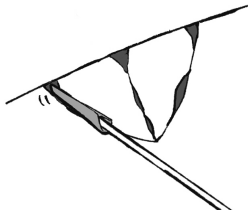


Fig. 25

- ① Taking care to avoid damaging the middle coat, polish the surface using a whetstone, charcoal, waterproof sandpaper (approx. #1,000), etc. (Fig. 19,25)
- ② Wipe the parts to be coated with ethanol to remove oiliness.

◎Applying the final coat

Rags, Canola oil, *Bengara-urushi*, Masking tape, Rapeseed oil, Spatula, Brushes, *Joban*.

※ Please be cautious of urushi allergies and wear disposable gloves while working.

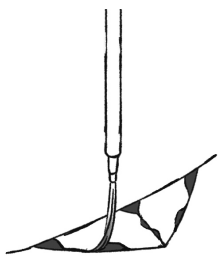


Fig. 27

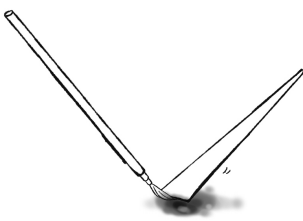


Fig. 6

- ③ Take out the urushi to be used for the final coat from the tube and thin it to a suitable viscosity using turpentine oil or camphor oil. Filter the *bengara-urushi* (*e-urushi*), after using camphor oil to dilute it to just the right density. If too much turpentine oil is added, it will not be possible to apply the lacquer thickly enough.
- ④ Wash the brush with lacquer and apply the *bengara-urushi* thinly and uniformly over the middle coat.
 - * To make brush movements, try to draw lines as if slowly and unhurriedly dripping urushi from the roots of the brush hairs.
- ⑤ After finishing the coat, **place the object in the *urushi-buro* and leave it until it is semi-dried.**
 - * It takes about 20-30 minutes for a thin coat to dry. Drying time varies depending on the coat thickness, surrounding temperature and humidity, and the condition of the *urushi-buro*.
- ⑥ After using brushes, clean them using canola oil or other non-drying oil, then store them. (Fig. 6)



7th day VII : Applying the final coat and *kinpun-maki* (sprinkling gold powder)

◎Sprinkling the gold powder

Smooth paper mat, Weight, *Keshi-fun* (gold powder), Dusting brush, Silk floss

Preparation of silk floss and gold powder

⑦Tear off a piece of square floss silk pad and roll it into a tampon shape.

* Prepare a mat or tray to pour some of the *kinpun* gold powder. If you use a piece of paper or similar with a smooth surface as a mat, you can easily collect any leftover powder afterwards.

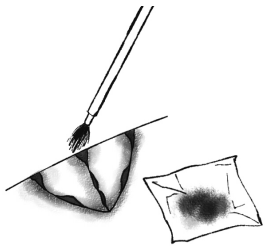


Fig. 29

⑧When the final coat is **semi-dried**, use a dusting brush (*kebo*) to sprinkle gold *keshi-fun* powder over the lacquer. (Fig. 29)

* Make sure that the hair ends of the dusting brush (*kebo*) do not touch the lacquered surface.

⑨Keep the object on the board for some time to check that the gold powder does not sink too far down.

* Sprinkle more gold powder over the parts where sinking has occurred.

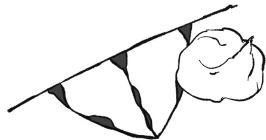


Fig. 30

⑩When gold *keshi-fun* powder is applied, gently polish the surface using *mawata* (silk floss). (Fig. 30)

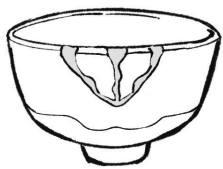


Fig. 31

⑪Place the object in a moistened *urushi-buro*, leaving it to cure for at least one week.

If the *urushi-buro* becomes dry, moisten it again. (Fig. 31)

One week later

Collecting the excess gold powder. First, we'll use the silk floss to absorb any excess gold powder. If there are any areas where the gold powder has spilled over, gently remove it with a bamboo skewer or similar tool. Once you've thoroughly wiped away the excess gold powder, your piece is complete.

* Start using the object only after three months or so, when the lacquer has properly hardened.

* Typically, *bengara-urushi* is used with gold powder and *kuro-urushi*(black) is used with silver powder.

* When using *keshi-fun* or similar powder, the finish is complete immediately after sprinkling, whereas with *maru-fun* powder, polishing is possible only after fixing the powder.