



Pre-Reduced Indigo

Instructions

Read through all instructions before beginning.



This specially formulated indigo is already 60% reduced; therefore, it allows you to use soda ash instead of lye in the dye vat. Extremely easy to use, pre-reduced indigo makes setting up an indigo vat almost effortless. There is no need to paste up the indigo granules because they dissolve easily in water.

- The general idea in keeping an indigo vat is that you want to keep the vat as oxygen free as possible. It is important to squeeze excess air from the fabric. It is also important not to splash the mixture while mixing or dyeing.
- Store the vat in an area where the temperature will remain between 68° - 85° F (a comfortable room temperature). Keep out of reach of children and animals. Always store with the lid on the container.
- Keep in mind that the color is darker when wet.

Precautions: Do not use utensils or dishes used for eating. WEAR GLOVES.

Setting up an Indigo Vat

Gather all the items required and prepare a work area.

The following recipe fits well in a 5 gallon bucket.

Materials:

- 20 grams pre-reduced indigo dye
- 150 grams reduction agent (thiox or hydrosulfite)
- 100 grams soda ash
- 4 gallons warm tap water
- Rubber gloves
- 5 gallon bucket with lid
- Stir stick long enough to reach the bottom of the container without having to submerge your hands.

Other helpful items:

- Small container for removing and storing the 'flower'
- Shallow pan to place your fabric in while oxidizing
- Plastic sheeting to cover the area where you will have the indigo vat

1. Fill up the five gallon container with 4 gallons of warm tap water.
2. While stirring, slowly empty the **soda ash** and **reduction agent** into the water.
3. Empty the **pre-reduced indigo dye** packet into the water. Stir.
4. Gently but thoroughly stir the vat going in one circular direction creating a slight whirlpool. Once the vat is well mixed, stop or slow the whirlpool by dragging the stir stick along the outer edge of the dye bath before slowly removing it. This will cause the bubbles or foam, called the "flower," to become centered in the bath. The flower is the result of the oxygen escaping from the liquid and rising to the top. Cover the vat with a lid and allow it to settle for at least 15-30 minutes. For best results, wait one hour or longer for larger vats.
5. After the vat is settled, remove the lid. The top of the dye bath will be covered with a layer of foam called the 'flower' or 'bloom.' Gently push aside the 'flower' to check the color of the liquid. The dye bath should be a clear yellow or yellow-green, color under the flower. If it's not, then wait another 30 minutes and check again.

Dyeing

1. Fold, tie or bind your garment or fiber.
2. Thoroughly wet or soak your fabric in water.
3. When you are ready to begin dyeing, remove the cover from the vat. Wearing gloves, use a small container to gently scoop the 'flower' from the top of the vat, and set it aside. It is necessary to remove the 'flower' because it is possible that the residue can cause unwanted light or dark spots on your fabric.
4. Squeeze excess water and air out of your fabric.
5. While still squeezing your fabric, slowly submerge your piece into the dye vat. Once the fabric is submerged, gently manipulate it to ensure that the dye will penetrate the unbound parts evenly. You may work the piece in the vat underneath the surface for one to several minutes in this way.
Note: Do not drop the fabric in the vat and let it sink to the bottom. There will be residue that has settled on the bottom of the vat and you don't want to stir that up while you are dyeing. The residue can cause spots on your dyed piece.
6. When you are ready to take the fabric out of the vat, squeeze it just below the surface as you slowly remove it. You want to prevent splashing because it introduces oxygen back into the vat. The fabric will be the same yellow-green of the vat. Slowly, the fabric will begin to turn blue as the oxygen in the air contacts it. Place the cover over the container.
7. Set aside the fabric to allow the piece to completely oxidize. You may want to turn the piece and open up any areas that you want to turn blue. Let oxidize for about 20 minutes.
8. If you're satisfied with the color after letting the piece oxidize, rinse excess indigo from the piece. Then untie it and wash with a mild detergent in warm water. To achieve a darker shade of blue, repeat steps 4 through 7.
9. When you've finished your dyeing session, gently put the 'flower' back onto the surface of the vat. The 'flower' will help to seal the dye bath and keep oxygen from entering it. Using your stir stick, gently stir the vat as before (a circular motion and reversing the direction, centering the 'flower'). Place lid back onto vat and let settle for at least an hour before using the vat again. The vat will keep for several days or weeks and you will be able to dye several times. See [Tending an Indigo Vat](#) section.
10. When you are ready to dispose of the vat, empty contents down the drain. Clean up bucket and utensils with a powdered cleanser or soap.

Tending an Indigo Vat

An indigo vat can have a very long life if used and tended to regularly. As mentioned above, the best type of container for a vat is a cylinder shape with a tight fitting lid. This will give you room to dye the fabric without it touching the bottom and minimize the surface area that is in contact with air. Occasionally, you may need to add more of the reducing chemicals and the pre-reduced indigo to keep the vat going.

Always try to dissolve the soda ash in a little water before adding to the vat. Start by adding a little at a time. Sometimes more than one addition is needed. When you add something to the vat, it is important to wait for the chemical reaction to take place (at least one hour) before adding more.

- If the vat looks more blue-green than yellow-green, or if you see blue particles suspended in the liquid, the vat needs to be reduced more. Add 2 to 10 grams of reduction agent at a time.
- If the color seems weak, or the liquid in the vat is gray and watery, an addition of the pre-reduced indigo is needed. Add 2 to 10 grams at a time.