

Indigo & Woad Vat Dyeing With Hue & Dye Natural Extracts

Please read our health and safety guidelines before using any of our dyes, mordants, fixers or auxiliaries.

What can I dye?

Our natural dyes will work on any natural fibre 'goods' - yarn, fabric, fibre, fleece etc. They will work on both animal or plant fibres. Natural/synthetic blends will still dye but the higher proportion of synthetic content the less satisfactory the results.

Vat Dyeing

There are a number of methods for dyeing with indigo and woad – here is one straightforward method to get you started:

To dye approx. 250g fibre you will need:

- 15g indigo or 10g woad extract
- 20g Hydros or thiourea dioxide
- 20g Sodium carbonate

You will also need:

- White vinegar/citric acid
- Shampoo or mild soapflakes/handwash liquid
- Water
- Plastic bucket for soaking yarn
- A large container with lid, large enough to comfortably hold the yarn, ideally a large stainless steel or enamel pan
- Gloves, dust mask, apron and plastic/newspapers to cover surfaces
- Dust mask
- Measuring spoon (ideally 2.5ml or smaller, but a normal 5ml spoon is okay)
- Measuring jug
- Stirring stick or spoon
- Access to a hob/hotplate
- Cooking thermometer

Dyeing instructions

1. Wet fibres thoroughly, adding a drop of washing up liquid to the water to help fibres soak up water.
2. Dissolve 2-4tsp (10-20g) sodium carbonate in 4tbsp (60ml) hot water. Allow to cool.
3. Add 10-15g indigo/woad to the sodium carbonate solution. Mix to a paste.
4. Heat 3-4 litres of water in a large pan until it is about 50°C (120-130°F) for wools and silk, 35-40°C (100°F or hand-hot) for cottons.
5. Add the indigo/woad paste and stir carefully, trying not to create bubbles of air.
6. Carefully add 20g hydros or thiourea dioxide to the pan, stirring very slowly and gently so as not to add air to the water.

7. Keep the dye vat at around the same temperature, until the liquor is a clear greeny-yellow with a blue-bronze surface. There may be some blue-bronze foamy bubbles. This is called the 'flower' and is quite normal.
8. If after an hour the vat is still not greeny-yellow, add a little more hydros/thiourea dioxide and wait for a few minutes. Repeat if necessary. If the vat turns completely yellow there is too much hydros/thiourea dioxide so stir a little to re-introduce some oxygen to the vat.
9. Add wetted, squeezed fibres to vat, trying not to introduce any air to the vat.
10. Leave the fibres in the vat for 2-15 minutes, keeping the temperature at around 40-50°C. Short, repeated dips will produce better results than one long one.
11. Carefully remove fibres without squeezing. To reduce blotchiness, for yarns, immerse quickly in warm water then leave for 20-30 minutes in the open air to oxidize. For fabrics, dunk immediately into warm water and leave for 20-30 minutes in the water.
13. Rinse fibres in warm water with a dash of white vinegar or citric acid.
14. Rinse fibres again in hot water with a mild shampoo or with gentle, PH neutral washing liquid/flakes. Then rinse again with plain water.
15. If there is colour remaining in the dyebath it can be used again to dye more fibres to a paler shade. If the bath has gone blue, add a little more hydros/thiourea dioxide until it returns to greeny-yellow as before and repeat the process. To create a deeper shade, your fibres can be dipped several times.

Using indigo and woad extract with other natural dye extracts

Indigo and woad can be used with other extracts, particularly for good green shades.

- To use indigo and woad with other extracts, first mordant the fibre in the normal way (see our separate instruction leaflet for details) and rinse the fibres in lukewarm plain water to remove any excess mordant and avoid introducing it into the indigo/woad vat. Dye with indigo/woad as above. Rinse and re-dye using a second extract as desired.
- Alternatively, dye with another extract first, rinse thoroughly then dye with the indigo/woad.