DYEING INSTRUCTIONS
WITH NATURAL INDIGO

Dyeing with natural indigo

Natural indigos from Couleurs de Plantes will provide you a large range of beautiful shades on natural fibres (silk, wool, linen, hemp, cotton, bamboo...) and can also be used with some synthetic fibres (polyamide...).

The process for indigo dyeing is different than the one for mordent dyes. It does need a step (named reduction step) consisting in converting the pigment into a soluble form. The textile to be dyed is immersed in this solution. At the end of the process, while removing the textile from the dyebath, the contact with the oxygen from air will make the textile to quickly develop the blue colour (named oxidation step). This is always a magical time!

The result will depend on the fibre, on the nature and quantity of indigo used. Your experience in natural indigo will allow you to create your own recipes with large ranges of shades.

Instructions and advices

Use preferably stainless steel or enamel house ware or tanks, large enough to contain an important volume of water (15-20 L x WOF (Weight Of Fiber)); wear gloves.

The reduction / oxidation steps involve ingredients (sodium carbonate and sodium hydrosulfite) that need to be handled with a little care. Wear appropriate protective equipment : gloves, glasses and clothing protections. Use with adequate ventilation.

1. Weigh dry fibres before rinsing to determine WOF.
2. Determine the necessary quantity of indigo (table below);

<table>
<thead>
<tr>
<th>For a shade</th>
<th>Quantity of indigo necessary</th>
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<tbody>
<tr>
<td>Intense blue</td>
<td>50 to 100 g</td>
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<tr>
<td>Light blue</td>
<td>&lt; 50 g</td>
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</table>

3. Prepare an indigo stock solution as follows:

Indigo stock solution – Depending on the quantity you want to make soluble (reduced form).

Prepare two pots as follows:

Pot A : Prepare a solution depending on the quantity to reduce

- Weigh Indigo : 10g or 25g or 50g or 100g
- Pour in a jar with a lid of : 200 ml 500 ml 1 L 2 L
- Add Alcohol (éthanol) 8-10g 20-25g 40-50g 80-100g (methylated spirits may be used)
- Homogenize until getting a consistent paste.

Pot B : Weigh Water – heat up to 50°C (≈120°F) 120 g 300 g 600 g 1200 g
- Add Sodium carbonate, then mix 10g 25g 50g 100g
- Add Sodium hydrosulfite 10g 25g 50g 100g

IMPORTANT : ALWAYS pour sodium carbonate or sodium hydrosulfite IN water. Never reverse order.

GENTLY mix (avoid air in the solution). Close the pot. Allow 10 min à 50°C (≈120°F) in order for ingredients to dissolve.

Pour slowly pot B INTO pot A. Keep closed with gentle mixing. Allow 30 min at 50°C (≈120°F) for the reduction process to complete. A well reduced stock solution must turn into a greenish-yellow colour. During this time, we recommend to get to steps 4 and 5.

4. Fibres must be rinsed in mild water with soap prior to dyebath

5. Prepare the dyebath (water containing 5 g/L of sodium hydrosulfite + 2 g / L of sodium carbonate). Heat up to 50°C (=120°F)

6. GENTLY pour the indigo stock solution into the dyebath, without using the sediment at the bottom (you also can determine and use the exact quantity necessary for your dyebath). If possible, set pH to 8-9.

7. Immerse the fibres and dye at 50°C (=120°F) with gentle mixing. Keep the dye tank closed. Allow fibres to cool into the bath at the end.
8. Remove dyed fibres from the bath. Quickly move into the air or under a tap water stream in order to make the oxidation of indigo. This will develop the blue colour.

9. In order to lower alkalinity on fibres it may be useful to make an acidic bath (pH 4 or 1 spoon of white vinegar per 10 L)

10. Rinse with mild water and soap, leave them drying

If you want a more intense shade, you may dye again your fibres (humid) from the step # 8. Make sure first that the indigo bath is still under reduced form (greenish-yellow colour). If necessary, add a little sodium hydrosulfite and sodium carbonate and leave them dissolve.

**Washing and care of your natural dyed textiles**

A few precautions in order to protect the natural colours of your textiles:

- **Wash your natural dyed textiles at low temperature (40°C maximum).**
- **Avoid washing powders** (they contain bleaching agents that will quickly fade your colours) and bleach.
- Prefer washing with natural soap, soap nuts (without bleaching agent sometimes recommended!), washing ball or washing liquid (most of them are without bleaching agents).
- Dry your textile away from direct sun.

**IMPORTANT**

Our products are only intended for textile dyeing or decorative products - Do not use for food - Keep away from Childs