

36150 Redwood, Brazilwood, Lignum fernambuci

C.I. Natural Red 24

The term „Redwood“ is referred to a number of different woods which is divided in two groups: soluble and insoluble redwoods. Brazilwood belongs to the soluble redwoods. Insoluble redwoods are, for example, Sandalwood, Coralwood, Muningawood. Brazilwood is derived from the Arabic name “Braza” which means pale red.

Brazilwood (or Pau-Brasil, sometimes known as Pernambuco) - *Caesalpinia echinata* - a dense, orange-red wood (which takes a high shine), and it is the premier wood used for making bows for string instruments from the violin family. The wood also yields a red dye called brazilin, which oxidizes to brazilein.

Botanically, several tree species are involved in the family Leguminosae, the (pulse family). The term "Brasilwood" is most often used to refer to the species *Caesalpinia echinata*, although it is also applied to other species. This *Caesalpinia echinata* is also known as Pau-de-Pernambuco (Pernambuco is also the name of a small state in Northeast Brazil).

To extract the dye, an aqueous extract is made from the grated wood, which is first yellow and after a while in the air it turns red. Older wood contains more dye and the extracts are redder from the beginning. The addition of acid makes the extract yellowish, and bases give an intense red color. Lakes can be obtained by the addition of salts: tin salts give a carmine red precipitation and iron vitriol a violet one.

Materials dyed with redwood extracts are not very resistant to acids and bases. Compared to the dyes now available, the lightfastness is also very low.

Redwood extracts (36160) are prepared by drying the aqueous extracts. These are available as pieces or in powder form, in the past it was also available as liquid pulp. Redwood extracts are more difficult to handle, partially it has to be cooked for a long time until the dry is solved again.

Important note:

Caesalpinia echinata is a protected species. Therefore it is getting more and more difficult to offer brazilwood at all. Our Brazilwood comes from historic remainders, which are CITES-certified. The actual batch of this dyewood contains less dyestuff than the old quality, but allows to achieve beautiful, clear red and pink hues. The wood can contain residue of resins, therefore the dyewood extract has to be filtered before use.

Recipe for dyeing with brazilwood according to Gill Dably

Ingredients

50% Alum
12% Washing Soda
6% Tannic acid or 60% Powdered Oak galls
100% Rothholzspäne

Mordanting

Dissolve half the alum and half the washing soda in a pan of cold water. Enter the wet fibre and stir well while bringing to the boil. Boil for 1 hour, then leave overnight to cool. Rinse the fibre. Dissolve the tannic acid in a small amount of hot water and top up with cold water. Enter the fibre and heat the mordant bath up to 50°C. Keep at this temperature for 1 hour then leave to cool overnight. Squeeze out the fibre. Repeat, as before, with other half of alum and washing soda. Leave to cool overnight. Squeeze out the fibre. Rinse just before immersing the fibre in chosen dyebath.

Dyeing

Boil the Brazilwood in a small amount of water for 30 mins. Add some cold water and straint to remove the wood chips. Add more cold water to the dyebath, enough to make up to the required amount and enter the fibre. Bring the dyebath to the boil and allow to simmer for 45 mins. Leave the fibre in the dyebath until it is cool enough to handle and then rinse it well. Wash in soapy water, then rinse again to remove the soap.

Quoted from: Gill Dably: Natural dyes for Vegetable fibres, 1992, p. 43 and 53.