

## 36000 Indigo

A variety of plants, including woad, have provided indigo throughout history, but most natural indigo is obtained from those in the genus *Indigofera*, which are native to the tropics. In temperate climates indigo can also be obtained from woad (*Isatis tinctoria*) and dyer's knotweed (*Polygonum tinctorum*), although the *Indigofera* species yield more dye. The primary commercial indigo species in Asia was true indigo (*Indigofera tinctoria*, also known as *Indigofera sumatrana*). In Central and South America the two species *Indigofera suffruticosa* (Anil) and *Indigofera arrecta* (Natal indigo) were the most important.

Natural indigo was the only source of the dye until about 1900. Within a short time, however, synthetic indigo had almost completely superseded natural indigo, and today nearly all indigo produced is synthetic. Indigo is among the oldest dyes to be used for textile dyeing and printing. Many Asian countries, such as India, China, and Japan, have used indigo as a dye for centuries. The dye was also known to ancient civilizations in Mesopotamia, Egypt, Greece, Rome, Britain, Peru, Iran, and Africa.

Natural indigo is not soluble in water or in alcohol. To be dissolved, it must undergo a chemical change: an alkaline solution containing a reduction agent reduces the water-insoluble indigo to a soluble substance known as indigo white or leucoindigo. When a submerged fabric is removed from the dyebath, the indigo white quickly combines with oxygen in the air and reverts to its insoluble form (giving the blue color).

### Description

Natural indigo is a gained from fresh leaves of indigo plant (*Indigofera tinctoria L.*) by natural fermentation process. The main dye component is indigotin.

Substance Name:	Indigofera tinctoria extract
CAS No.:	84775-63-3
EINECS:	283-892-6
Color Index:	Natural Blue 1, C.I. 75780

### Origin

Culture of plants and manufacture of this extract in India.

### Process

Aqueous extract obtained from plant sources, natural fermentation and precipitation.

### Technical Properties

Appearance:	blue powder
Odor:	characteristic
Solubility:	insoluble in water
pH Value:	7 ± 1.0
Density:	800 – 900 kg/m <sup>3</sup>
Decomposition temp.:	not available
Flash point:	250°C
Moisture content:	5 ± 1.0 %

### Storage

Keep closed in a dry place. Avoid exposure to high humidity.