

Dena Natural Dyes tones of nature


## yellow

Yellow is the color of pulsating life -of corn and gold and angelic haloes. The yellow sun was one of humanity's most important symbols and was worshiped as God in many cultures. According to Greek mythology, the sun-god Helios wore a yellow robe and rode in a golden chariot drawn by four fiery horses across the heavenly firmament. The radiant yellow light of the sun personified divine wisdom. In China, yellow is assigned to the active and creative male Yang principle, it is the color of power -the emperors of China were the only ones allowed to sport sunshine-colored robes. On the other hand ancient Egyptians ascribed yellow to the female principle. In Buddhism yellow stands for restraint and nourishment. Surprisingly yellow was previously associated with the color worn by criminals but was chosen by the Buddhist faith as a symbol of humility and separation from a materialistic society.

## LEMON YELLOW

obtained from the Helichrysum Orientale flowers, known as curry plant



Wool

$\begin{array}{ll}\text { Polyamide Wool, } \\ & \text { Polyester, }\end{array}$
Viscose

## SUN YELLOW

obtained from the flowers of the Tagetes Patula plant, known as marigold


Cotton Single Jersey


Cotton Weave


Linen


Wool


Polyamide


Wool, Polyester, Viscose

## orange

Orange represents the luminosity within, it conveys energy, enthusiasm and balance. It has the energy of red but it is calmed by the happiness of yellow. In India and Nepal it has been a holy color which is believed to be the symbol of pure wisdom, strength and dignity. In Hinduism the color orange represents fire, a metaphor for the inner transformation. Pomona, the Goddess of fruitful abundance, wore her robes in orange. It was the impressionists' favorite color to use. Vincent van Gogh said "There is no blue without yellow and without orange". Antonio Stradivari made world-renowned violins with his orange varnish which later became an obsession for many instrument makers as if they believed it was this orange that made the musical instruments beautifully sing.

## ECO SAFFRON

obtained from the flowers of the Bixa Orellana plant


Cotton
Single Jersey


Cotton
Weave


Wool

Wool,
Polyester,
Viscose

## pink \& red

Pink has always been a spectacular contradiction. It is simultaneously freshfaced and sophisticated, alien and internal, and at home in both high and low culture. In Japan, it serves as the wistful symbol of the slain samurai; in Korea, it's interpreted as a sign of trustworthiness. Pink rarely appears in nature, which may explain why the color only entered the English language as a noun at the end of the $17^{\text {th }}$ century. But in other languages, the shade remains difficult to pin down. In Japan there are at least seven different terms for pink shades. In the West pink became fashionable in the mid-1700s when European aristocrats -both men and women, wore faint, powdery variants as a symbol of luxury and class. Pink was not then considered a "girls" color, it was in fact often considered more appropriate for little boys because it was seen as a player shade of red which had "masculine" military undertones.


## beige

Beige has traditionally been seen as a conservative, background color. It takes its name from French, where the word originally meant natural wool that has been neither bleached nor dyed, hence also the color of natural wool. In some cultures, beige garments symbolize piety or simplicity. Traditional Saudi Arabian dress includes a flowing floor-length outer cloak-a bisht-made of wool or camel hair in black, beige, brown or cream tones. Beige, known as unbleached silk, is one of the Japanese traditional colors in use since beginning in 660 CE in the form of various dyes that are used in designing kimonos.

## ECO BEIGE

obtained from walnut shells


Cotton
Single Jersey
Cotton
Weave


Linen


Wool


Polyamide
Wool,

Polyester, Viscose

## brown

Brown is the color of soil and therefore represents earthiness. While it might be seen as a little dull comparing to other colors, brown also represents simplicity, health and dependability. Its importance in painting is highly recognized by artists for enabling them creating a sense of realism on the canvas. Brown is also an inspiration for improving the world's beer quality. Joseph Lovibond who is known for his pioneering work with colors, had a family brewing business. As he realized the tones of brown in beer were a good guide to their quality, he produced the first colorimeter with a scale of many different kinds of brown. He later adapted it to measure the three primary hues, red, blue and yellow, and so revolutionized color testing.

## GARNETT BROWN

obtained from pomegranate peels


Cotton
Single Jersey

Cotton
Weave


## NUT BROWN

obtained from lowers of St. John's Wort



Cotton
Weave


Linen


Wool


Wool


Polyamide


Wool, Polyester, Viscose

## grey

There is something deeply alluring about the color grey. Neutral and emotionless, yet strong and timeless, grey is a color found throughout the ages. In the Middle Ages, grey was the color of undyed wool and thus was the color most commonly worn by peasants and the poor. However that has changed with French Revolution. The revolution really brought about the old cliché "clothes make the man" and fashion became very political. Affluent people began dressing down, in order to save their necks, literally. Bright colors, gold leaf, frills, cuffs and flamboyance all fell out of favor, with darker more neutral clothing coming into fashion. This sparked a lasting change, as the ideas of democracy spread across the world, and the fashion sense came with it. To this day, this style has remained, with suits made of dark and neutral colors as the choice for most authoritative figures.

## GREY G

obtained from the Hibiscus plant


Cotton
Single Jersey


Cotton
Weave


Linen

## green

Green is a color that's as old as the trees and has been mesmerizing humans for centuries. Green is the color of life. It is the color of renewal. It symbolizes hope and immortality. That must be why it has also held the spotlight for having special significance in various kingdoms, empires, religions and societies. In ancient Egypt, green was the symbol of regeneration and rebirth. The Chinese associate green with the female Yin -the passive and receiving principle. Islam venerates the color green, expecting paradise to be full of lush vegetation. Despite all the symbolism of livelihood and immortality, history of color green has a deadly fact. No pigment in the history of art was considered more poisonous due to its toxic chemical ingredient arsenite in late 1700s. Historians believe the pigment caused the death of French emperor Napoleon Bonaparte in 1821 as his bedroom wallpaper featured the deadly hue.

## OLIVE GREEN

obtained from the leaves of flowering plants of mulberry from the Moraceae family


Cotton
Single Jersey


Linen


Wool


Polyamide


Wool, Polyester, Viscose

## why dena natural dyes?

Time consumption during dyeing \& washing steps;

## 305 <br> min.

Synthetic Dyestuffs

min.
Conventional Natural Dyes

# 170 

min.
Dena Natural Dyes

## saves time

The amount of water consumption during dyeing \&washing steps of 100 kg cotton fabric;



Synthetic Dyestuffs

## $4_{\text {ton }}$

Conventional Natural Dyes
$3_{\text {ton }}$

Dena Natural Dyes

## Natural Dyeing Industrial Process

## 1.Dissolved powder dyes;

The dyestuff is weighed in a certain amount and dissolved in hot water (the temperature of the water should be lower than $98^{\circ} \mathrm{C}$ ). It is brew for 30 minutes. It is filtered with a filter paper fabric.

## 2.Dyeing;

Take the prepared natural dye solution and the fabric into the dyeing bath. You can adjust the amount of Dyestuff according to the color depth you want.

## 3.Washing;

Rinse and wash the product at $50^{\circ} \mathrm{C}$ and drain the bath. Then, the process is finished by soaping with $1 \mathrm{gr} / \mathrm{lt}$ nonionic washing soap for 30 minutes at

 $40-50^{\circ} \mathrm{C}$ and rinsing.

## tones of nature

