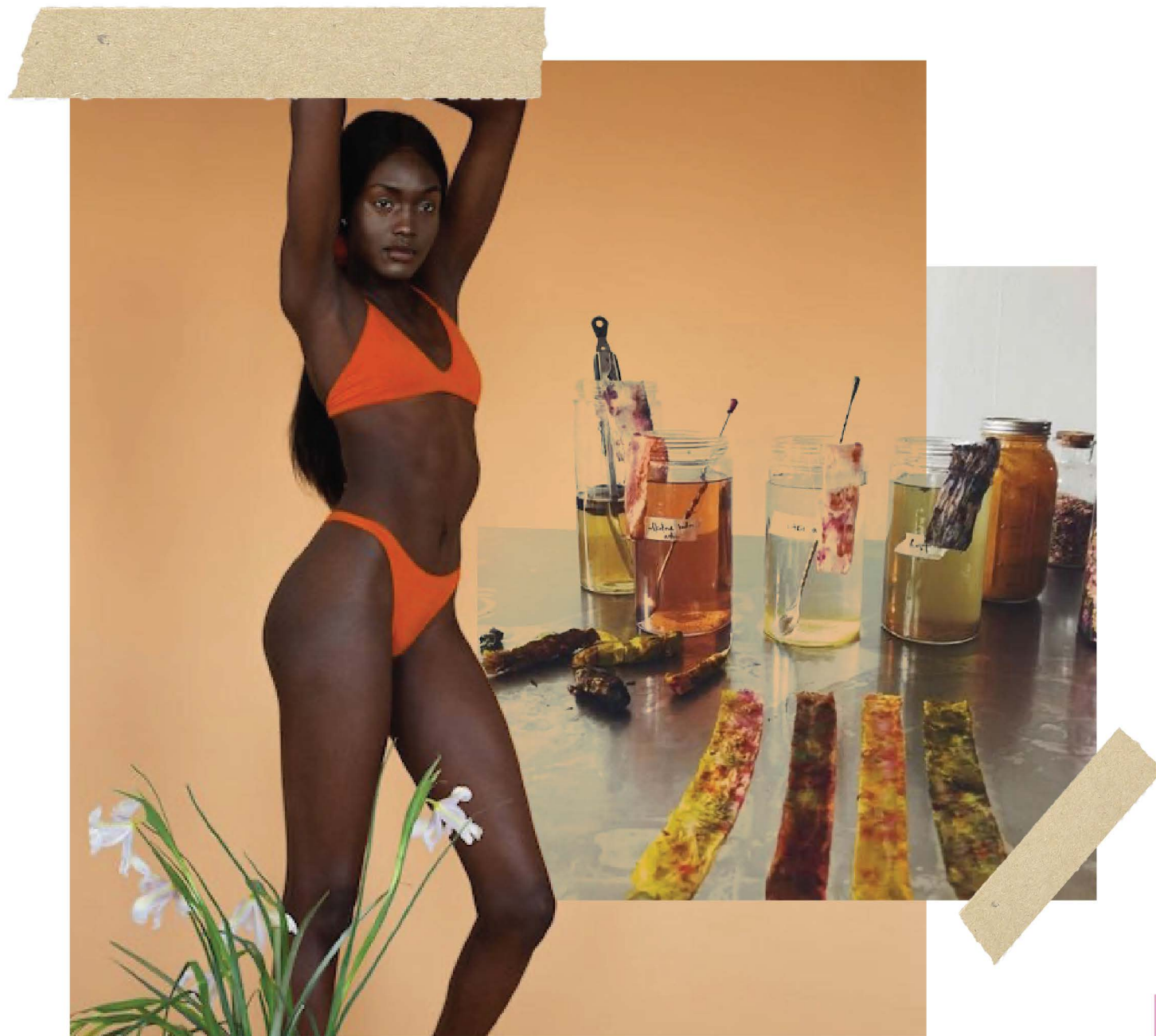


2021 Green Lingerie
Colour
Solution



Undyed

Concept: Address to zero-waste solution, using undyed yarn or fibre with naturally occurred colour in sustainable story cultivate attractive product narratives to eco conscious market.

Pros: It is eco friendly, pollution-free, energy-efficient, non-toxic , fade-free, allergic-free.

Cons: It has limited colour options and may have fineness limitation.

Colour Source: organic cotton, wool, man-made cellulose, recycle polyester, bio silk

Key Supplier: Organic Cotton Colours, Vresis Ltd(Fox-Fibre)

Brand Adopter: Brook There, Muji, Sustain by Kat, Baserange Store, Harvest & Mill, Object Story, Babaà



Brook There



Baserange Store



Babaà

FoxFibre Colour Card



Object Story

Natural Dyed

Concept: Natural Dyes are dyes derived from animal, plant or mineral without any chemical treatment, hence reduce pollution and energy consumption. It can be categorized as plant dyes, animal dyes, mineral dyes and fungal dyes

Pros: It is eco friendly, pollution-free, energy-efficient, non-toxic, fade-free, allergic-free.

Cons: It may encounter colour fastness and colour matching issue. Available colour options are also limited. The use of recycled lace is not recommended as colour variance is unstable.

Colour Source: Plant, animal, mineral, fungal, food waste

Key Supplier: Organic Cotton Colours, Vresis Ltd (FoxFibre)

Brand Adopter: Brook There, Muji, Sustain by Kat, Baserange



Flower Dye



Plant Dye Lace Illuna

Capability: Apply plant based dyes on synthetic fibre

Lace pattern: existing pattern

Colour: Pick from colour card, no lab dip

Lead time: ~12 week

Brand Adopter: Intimissimi, Carrefour

Attention:

- Colour variance in bulk (Delta E of 2.5-3)
- Unable to re-dye in bulk
- Avoid application of multiple lace due to colour matching issue
- Currently unaviliable due to liability issue



Catechu

Catechu is extracted from several species of Acacia, but especially Senegalia catechu (Acacia catechu), by boiling the wood in water and evaporating the resulting brew.



Pomegranate

The Pomegranate (Punica Granatum) is a fruit-bearing deciduous shrub in the family Lythraceae, subfamily Punicoideae, that grows between 5 and 10 m (16 and 33 ft) tall.



Rhubarb

Rhubarb is a cultivated plant in the genus Rheum in the family Polygonaceae. It is a herbaceous perennial growing from short, thick rhizomes.



Gall nut

Gall Nut is the common name for a large, round, vaguely apple-like gall commonly found on many species of oak. Oak apples range in size from 2 to 4 centimetres in diameter and are caused by chemicals injected by the larvae of certain kinds of gall wasp in the family Cynipidae.



Chlorophyll

Chlorophyll is any of several related green pigments found in the mesosomes of cyanobacteria, as well as in the chloroplasts of algae and plants. Chlorophyll is essential in photosynthesis, allowing plants to absorb energy from light.



Mirabolano

Terminalia catappa is a large tropical tree in the leadwood tree family, Combretaceae, that grows mainly in the tropical regions of Asia, Africa, and Australia.



Rubia

Rubia cordifolia, often known as common madder or Indian madder, is a species of flowering plant in the coffee family, Rubiaceae. It has been cultivated for a red pigment derived from roots.



Nimbus

Kerria lacca is a species of insect in the family Kerriidae. This species is perhaps the most commercially important lac insect, being a main source of lac, a resin which can be refined into shellac and other products. This insect is native to Asia.

Natural Dyes



Plant Dye Lace

Bright Sun

Capability: Only raschel/jacquard items

Lace pattern: existing pattern

Colour: Pick from colour card, no lab dip

Lead time: Extra 30 days for dyeing stuff order

Attention:

- Colour fastness to sunlight/light: level 2
- Price 60%+ vs normal



Rose
Melberry



Yellow
Gardenia Fruit



Light Brown
Camellia Fruit



Dusty Rose Red
Shellac



Coral Red
Madder



Red Brown
Green Tea leaf



Pale Yellow
Pomegranate rind



Indigo
Indigowoad leaf



Brown
Loquat leaf



Nude
Persimmon



Brown
Loquat leaf



Yellow
Rosewood



Olive Green
Gall



Yellow Brown
Chestnut



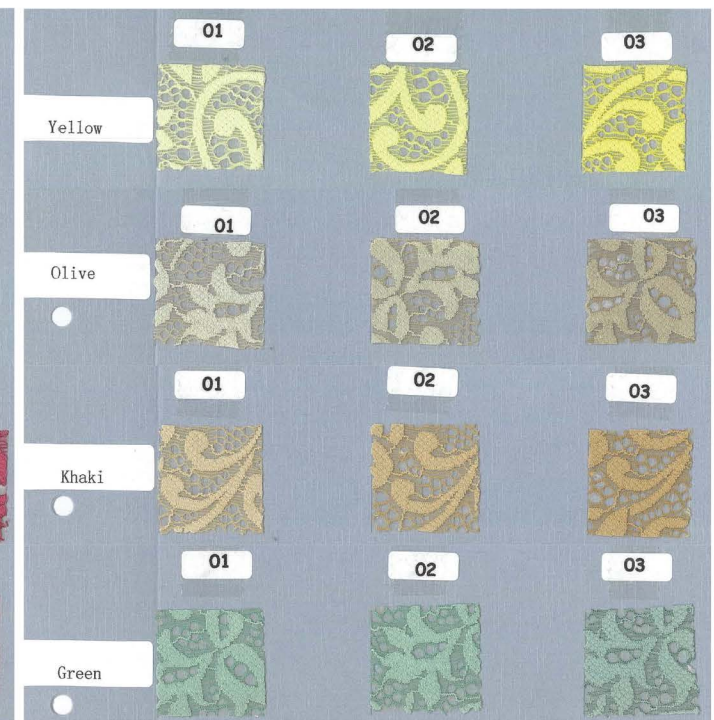
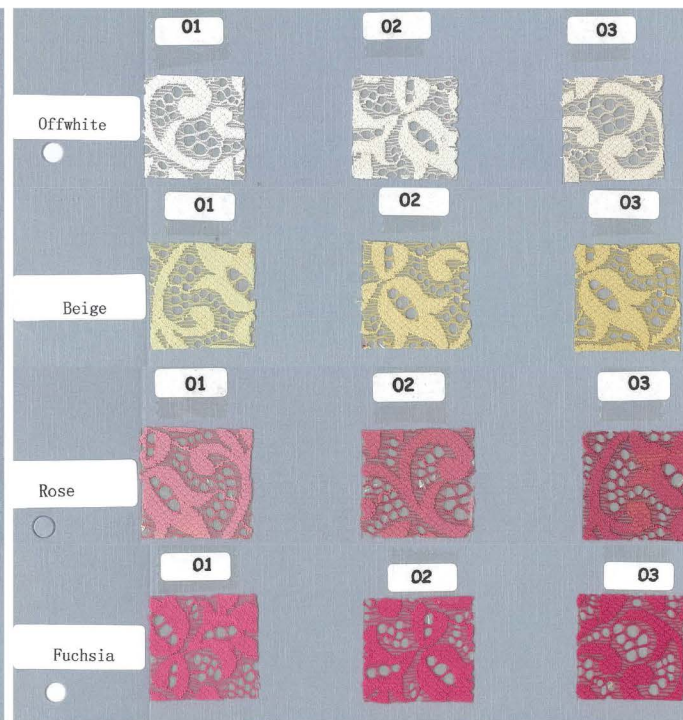
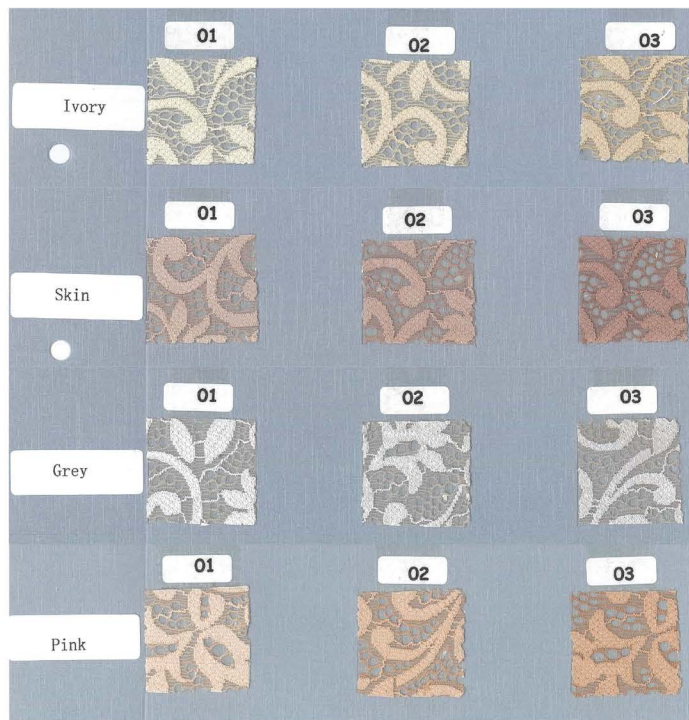
Dark Blue
Garedenia Fruit



Red Brown
Acacia



Grey
Myrobaian



Plant Dye Lace Fengyan

Capability: -Dye stuffs provided by My Sun Bio
-Only apply on nylon product, unable to achieve multi colour effect



Lace pattern: Pick from colour card, no lab dip

Lead time:

- Shipment lead time: Extra 30 days
- Sample order lead time: ~3 week

Attention:

- Colour matching: 70-80%
- Colour fastness to sunlight/light: level 2
- Price 50%-60%+ vs normal

Bright Yellow: 5909
Camellia sinensis



Mustard Yellow: 5907
Pomegranate rind



Brownish Yellow: 5911
Chestnut Skin



Impatiens: 5906
Impatiens



Light Brown: 5914
Camellia sinensis



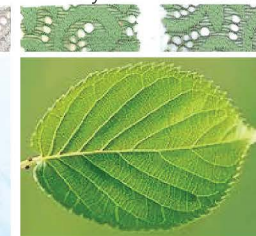
Dynamic Brown: 5910
Dioscorea



Grey: 5916
Gall



Lively Green: 5915
Mulberry Leaf



Olive Green: 5913
Gall



Pink: 5908
Acacia



Rose Red: 5917
Mulberry



Coral red: 5912
Rubia cordifolia



Plant Dye Fabric

Sinotex

Capability: - Provide plant dye for modal and lyocell fabric.

Pattern: Plain/Melange

Lead time:

-Sample lead time : 45-60 days

-Bulk lead time: 75-90 days

MCQ/MOQ: 4000yard/6000yard

Attention:

-Main have colour variation even within same lot.
Colour mark may find on fabric due to colour variation.

-Colour variance will be less obvious if melange pattern is picked,

-oeko-tex standard 100 certified



Plant Dye Fabric BROS (Yarn Supplier)

Capability: - Provide yarn dyed by natural dye stuffs. If a hanger is needed, required a fabric supplier to purchase yarn from BROS.

Fabric:

- Sample yardage lead time: ~30 days
- Bulk production lead time: ~50 days
- Price: 40%+ vs normal
- ITS Colour fastness: 4-5
- Certification: no 3rd party fabric supplier

Fabric:

- Bulk production lead time: 12 weeks
- Colour fastness: level 2.5-3

Attention:

- Colour difference could be seen across bulk lots
- No colour adjustment can be made

Colour Range for Fabrics (subject to changes)



Colour Range for Laces (subject to changes)



Dope Dyed

Concept: Dope dyeing technology introduce dye or pigment into molten plastic for spinning. Yarn are coloured in spinning process. no extra dyeing is needed in production, hence greatly **reduce energy consumption**.

Pros: ↓80% CO2 emission
↓83% Water Consumption
↓75% Electricity Consumption

Cons: It has colour restriction with existing 30 colour options.

Key Supplier: Sun Hing Textiles

Brand Adopter: H&M, Redmax, Decathlon, M&S, Adidas



Dope Dyed Fabric

Sun Hing

Capability: - Available for modal spandex, nylon spandex, polyester spandex
- 30 existing colours

Pattern: Plain/Melange

Lead time: 4-6 weeks

Attention:

-Colour fastness to sunlight/light: level 4-5(except neon colour)

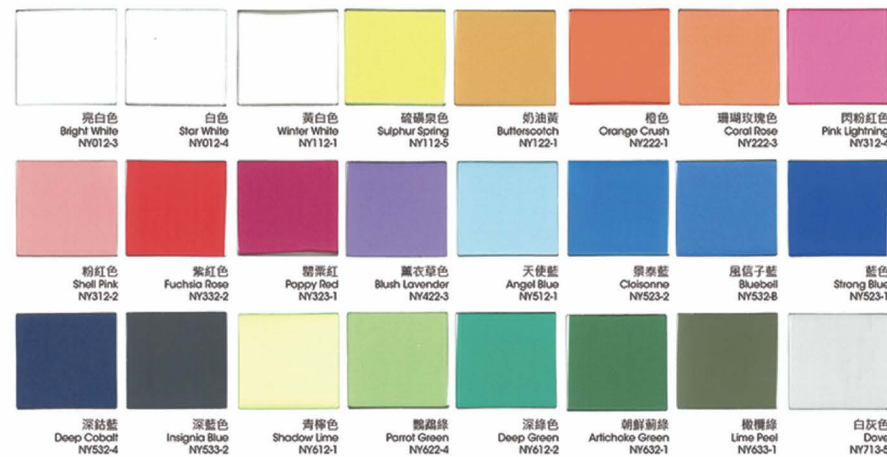
	Colour fastness to washing(60°C)	Colour fastness to water	Colour fastness to perspiration	Colour fastness to rubbing	Colour fastness to light	Colour fastness to sea water
Dark colour	4-5	4 to 4-5	4 to 4-5	4 to 4-5/4	4-4.5	4-5
Medium colour	4-5	4 to 4-5	4 to 4-5	4 to 4-5/4	4-4.5	4-5
Light colour	4-5	4-5	4-5	4 to 4-5/4	4	4-5
Neon colour	3-4	3-4 to 4	4 to 4-5	4 to 4-5	2.5-3.5	4 to 4-5



Polyester Dope Dyed Yarn Color



Nylon Dope Dyed Yarn Color



Modal Dope Dyed Yarn Color



EXPLORE MORE

#Sustainable Colour

1. Food Waste Dye

Colour Source: onion, coffee grounds, matcha, avocado, walnuts, etc

Pros: non-toxic source as an alternative to aniline dye.

Supplier:

Brand Adoptor: H&M, Ternua, Food Textile, Toyoshima

2. Mineral Dye

Colour Source: Color pigment extracted from rocks

Pros: non-toxic, non-allergic, biodegradable, and eco-friendly.

Supplier (Developing):

Wutong / Femina / Baikai / Klaube

Brand Adoptor: Mango, MUD Jeans

3. Prime Blue

Colour Source: Recycled polyester yarn derived from 50% Parley Ocean Plastic

Pros: Yarn dyed by sustainable dye technology saving 60% more water and energy than traditional methods.

Supplier: Parley Ocean Plastic

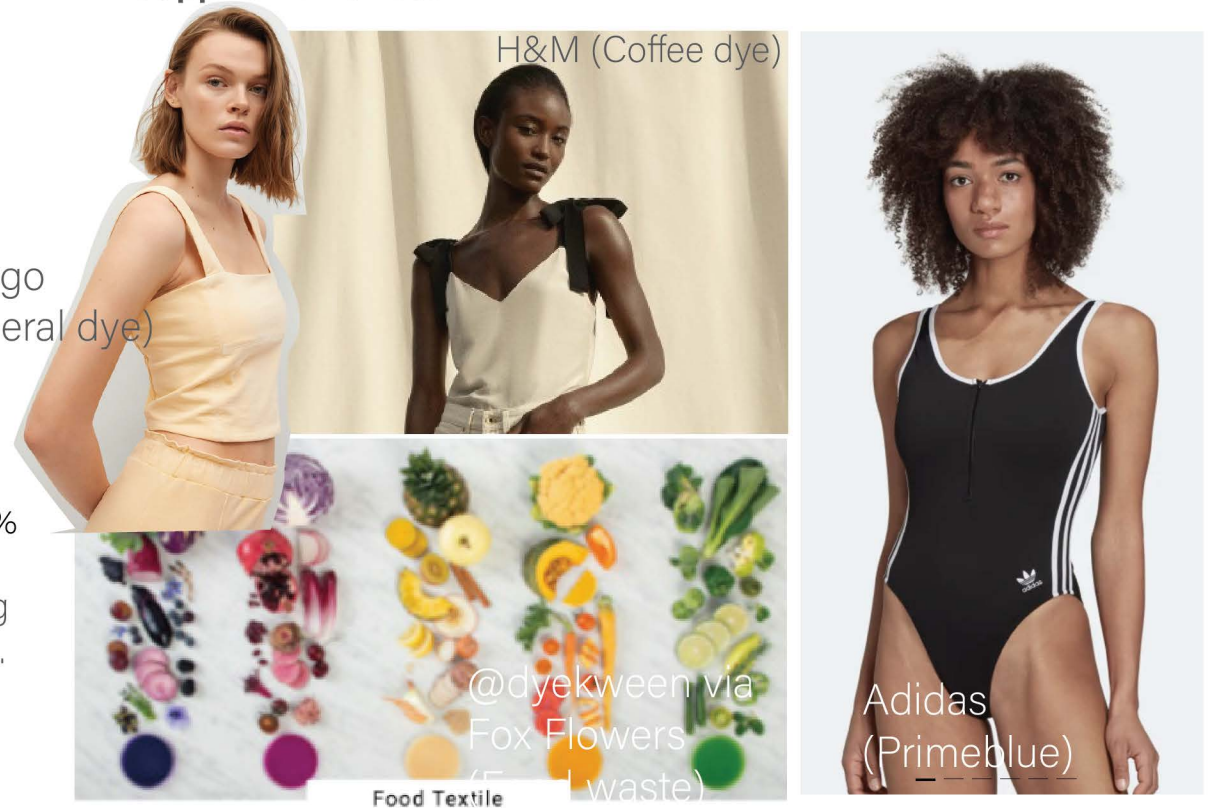
Brand Adoptor: Adidas

4. Textile Fiber to Colored Powder

Colour Source: Recycrom, 100% of recycled textile materials. Applied using various methods: exhaustion dyeing, dipping, spray, screen printing and coating.

Pros: made from 100% recycle material, reduce water consumption

Supplier: officina39



EXPLORE MORE

#DETOX COLOR CONCEPT

Detox colour concept would like to attain a completely sustainable dying process, therefore besides using green dye stuffs, they take traceability, the consumption of water, energy and time into account.

he Greendyes dyeing process can be applied to most fabrics: natural cellulosic fibres (cotton, bamboo, hemp, linen...), synthetic cellulosic fibres (lyocell, viscose), biosynthetic cellulosic fabrics (aloe vera, rose petal, algae, orange, soya, banana...), protein fabrics (wool, silk) and also on recycled fabrics such as Seaqual polyester and Q-Nova polyamide.

Supplier: Greendyes (Spain based)

Certifications and initiatives: Oeko-tex, Better Cotton initiative, Higg Index

	ARTIFICIAL LIGHT (1-7)	WATER (DIRECT CONTACT) (1-5)	ACID PERSPIRATION (1-5)	ALKALINE PERSPIRATION (1-5)	RUBBING (DRY) (1-5)	RUBBING (WET) (1-5)
	SOP 25	SOP 61	SOP 62	SOP 63	SOP 60	SOP 60
	CO	CO	CO	CO	CO	CO
B1	6-7	5	5	5	5	4/5
R1	7	4-5	4-5	4-5	3-4/4	2/3
V3	7	4-5	4-5	4-5	3-4	2/3
RS8	7	5	5	5	4-5	4
G1	7	5	5	5	4/4-5	2/3
N5	7	4-5	4-5	5	4/4-5	2/3
	CARCINOGENICS	ARYLAMINES	PHTHALATES	FORMALDEHYDE	ALLERGENOUS	HEAVY METALS
	SOP 163	SOP 52	SOP 67	SOP 58	SOP 70	SOP 55
	CO	CO	CO	CO	CO	CO
B1	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
R1	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
V3	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
RS8	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
G1	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
N5	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

