

INDIGO PROCESSING

The Most Polluting Industry

- X** Highest water consumption
- X** High aquatic toxicity pollutes the oceans and rivers
- X** Uses hazardous Reducing agents
- X** High carbon footprint

ENVIRONMENTAL IMPACT



10,000 litres of water is used to process one pair of Jeans.



The unfixed indigo dye is let loose straight to the rivers. This contaminates our water supply lines.



Hazardous Chemicals like Hydrosulphite a reducing agent are required to Dye the Denims. Which allows developing of colour.



It is an extremely hazardous chemistry.



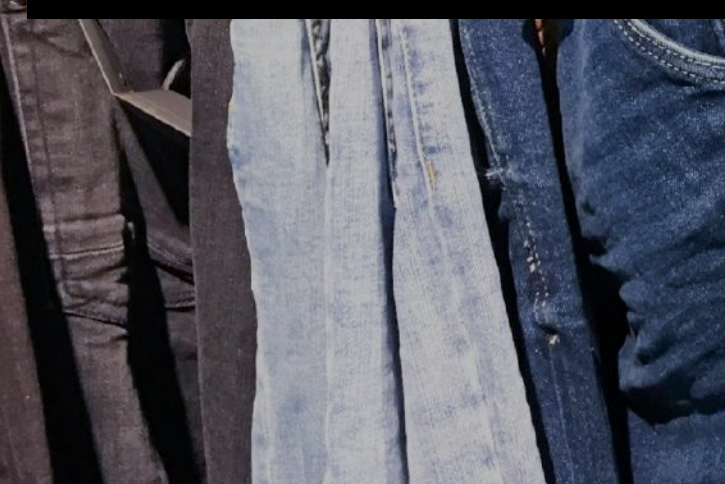
NATURE SAFE DENIM PROCESS

SCHUTZEN NATURAL PROCESS

Innovative alternate process to traditional Indigo Processing

Waterless Indigo Free, Denim like look using Pigments or Reactive Dyes instead

- ✓ Normally, A reactive/Pigment Dyed (Yarn or Fabric Knits as well as woven) will never exhibit wash down effect post processing, Thus the industry uses Indigo & Sulfur dyes.
- ✓ No post production changes in washing technique are necessary at the Garment level.
- ✓ The process is bio-Degradeable and Environmentally friendly.



PROCESS BENEFITS



MACHINE FLEXIBILITY

- Warp Dyeing Machine
- Padding Mangles
- Rotary/Flat bed printing machines
- Coating Machine



WATER SAVING

Reduced water consumption upto 40%



CHEMICAL SAFETY

- Indigo Free/Sulphur Free
- Hydrosulphite Free process
- Better fixation
- Less ETP load



COST SAVING

25-30% overall cost reduction



NATURE SAFE DENIM PROCESS

SCHUTZENCOL-FADER

sustainable wash down look using reactive Dyestuff & SCHUTZENCOL-FADER

SCHUTZENCOL-FADER is a ready to use Concentrated Liquor.

SCHUTZENCOL-FADER is a synergistic combination of Polymers based on a bio-degradable polymeric backbone which is bio-degradeable & Sustainable.



RECOMMENDED RECIPE

Sustainable wash down look using reactive Dyestuff & SCHUTZENCOL-FADER

PRODUCT NAME	RECIPE
SCHUTZEN Grade Special Reactive Dyestuff	X parts
SCHUTZENCOL-FADER	70 parts
Water	Y parts (upto viscosity 5000 cPs)
pH (Check)	8-9
Total	100 parts

POST REACTIVE WASHDOWN PROCESS

Sustainable wash down look using reactive Dyestuff & SCHUTZENCOL-FADER



Transfer to machine of choice (soft-flow, jigger, open width etc)
treat with SCHUTZENZYME-NC (1-2% o.w.f.)

Run machine at 55 °C for 10-15mins

POST REACTIVE SOAPING PROCESS



80 °C

Soaping & anti-using SCHUTZENWASH-12

Neutralise using SCHUTZENACID-NEUTRA

Cold Wash

Dry

NOTE: The sequence for enzyme wash are reversible based on guidelines from the manufacturer



SCHUTZENCOL-FADER

Sustainable Wash Down Look Using Reactive Dyestuff SCHUTZENCOL-FADER



SCHUTZENFIX-RD:20g/l, 80% expression

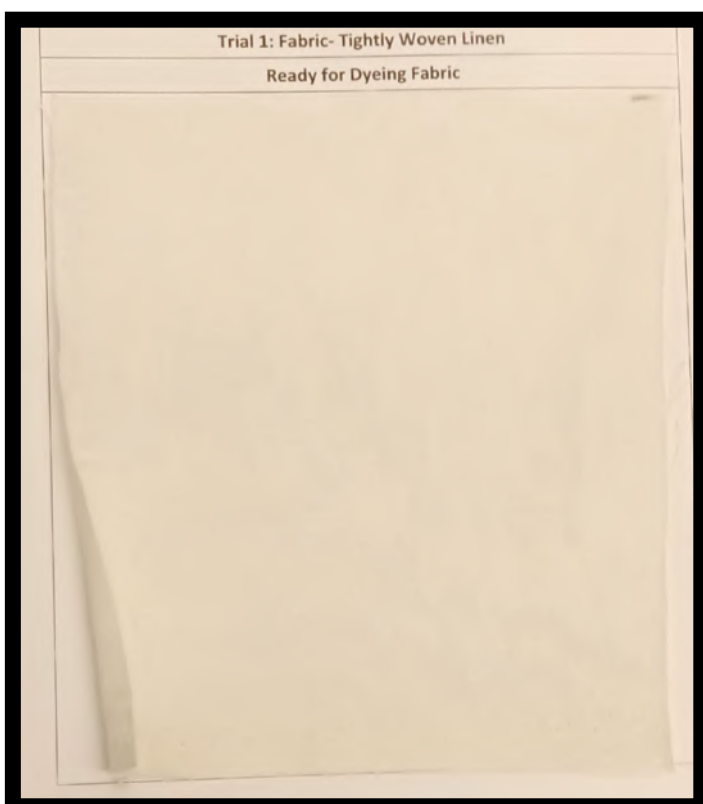


100°C for 3-5mins

NOTE: This step is not mandatory; it is to be carried out only if found necessary

EFFECTS

Sustainable Wash Down Look Using Reactive Dyestuff SCHUTZENCOL-FADER





NATURE SAFE DENIM PROCESS

SCHUTZENCOL-DENIM

Sustainable Wash Down Look Using Pigments SCHUTZENCOL-DENIM

SCHUTZENCOL-DENIM is a ready to use Concentrated Liquor.



RECOMMENDED RECIPE

Sustainable wash down look using pigments SCHUTZENCOL-DENIM

PRODUCT NAME	RECIPE
Pigments	X parts
SCHUTZENCOL-DENIM	70 parts
Water	Y parts (upto viscosity 5000 cPs)
pH (Check)	6-7
Total	100 parts

APPLICATION PROCESS FLOW

Sustainable wash down look using pigments SCHUTZENCOL-DENIM



PAD

2 dip nip 80-90% expression



DRY

100 °C for 3-5mins



CURE

150 °C for 2-3mins

WASHDOWN PROCESS FLOW



COLD
WASH

Cold Wash



HOT
WASH

Transfer to machine of choice (soft-flow, jigger, open width etc)
treat with SCHUTZENZYME-NC (1-2% o.w.f.)

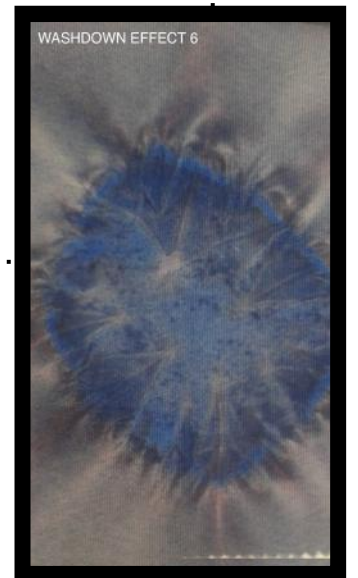
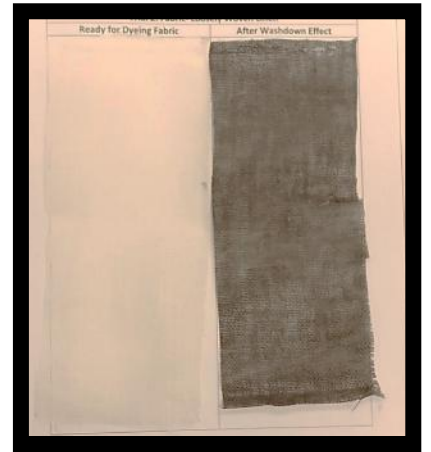
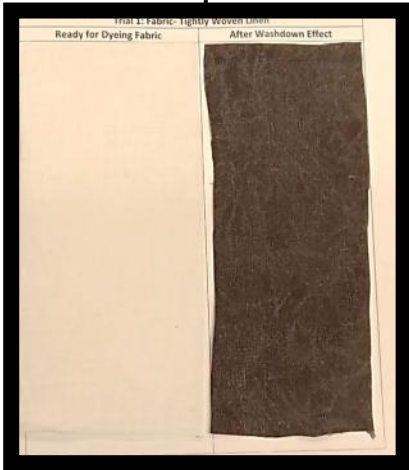
Run machine at 55 °C for 10-15mins

Hot Wash & Cold Wash

Dry

EFFECTS

Sustainable wash down look using pigments SCHUTZENCOL-DENIM



CERTIFICATIONS

SCHUTZEN is committed towards acquiring the right certifications

Textile Chemical Safety Certificates

