

DenimBlu³⁰

PRE-REDUCED INDIGO

for quality and sustainable denim.
meeting requirements of denim mills, retailers and consumers.

certified by

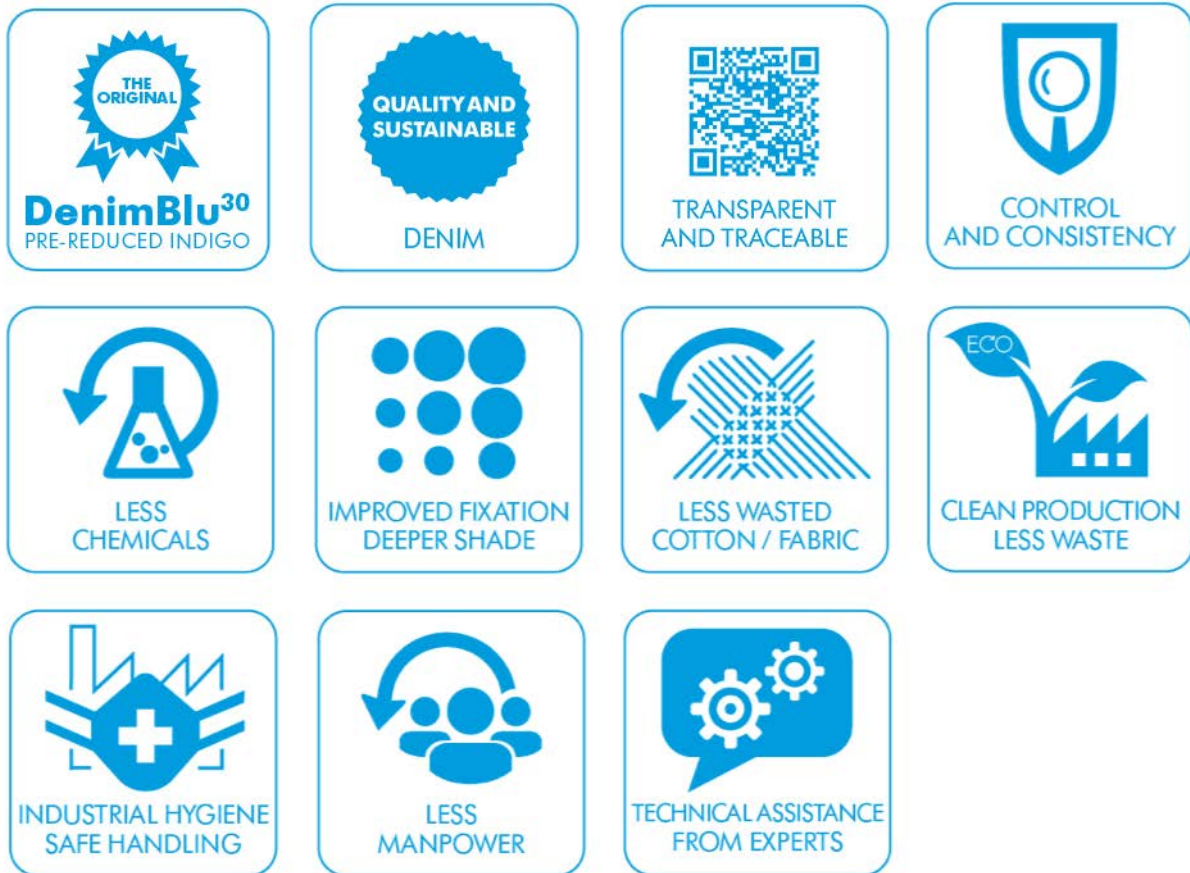


for further information please contact
mail@bluconnection.com



BLU³⁰CONNECTION
people. passion. projects.

TECHNICAL DATA SHEET



benefits using DenimBlu³⁰


- meeting all QEHS requirements
- remarkable savings in indigo, hydrosulfite and caustic soda.
- more fabric up to standard – less off-shade fabric – reduced number of shade groups.
- elimination of dyebath overflow. savings in wash water.
- precise and easy application of a standardized product. no stock vat preparation.
- improved industrial hygiene and safety. no dust and no contact of workers with the product.
- reduction of the salt load in the process.
- reduction of sludge formation in the waste water treatment plant.
- reduced labour cost.
- option to dye deeper shades.

TECHNICAL DATA SHEET

features, composition, tracking and tracing information of DenimBlu³⁰

- aqueous solution of reduced indigo.
- no inorganic salt deriving from the chemical reduction of indigo.
- density 1.15 g/cm³ at 20 °C.
- easy to dose.
- **Bluconnection provides customized tracking and tracing information, e.g. QR on documents and hangtag.**

example

invoice no.	INV220616	 BLU CONNECTION people. passion. projects.		
date	06.06.22			
customer	sample			
production date	04.06.22			
loading date	06.06.22			
lot no.	BC220501-05			
quantity (kg)	25500			
COMPOSITION OF DENIMBLU30				
INDIGO CRUDE				
batch	concentration	lot no.	container	supplier
BC-22-00627	29.5 - 30.5%	22033009-M	wfl-749BC	Wonderful Chemical Industrial Ltd
BC-22-00628		22033010-M	wfl-749BC	Wonderful Chemical Industrial Ltd
BC-22-00629		22033011-M	wfl-749BC	Wonderful Chemical Industrial Ltd
DISPERSING AGENT				
batch	0.1 - 0.5%	lot no.	supplier	
BC-22-00138		62307668E0	BASF	
BC-22-00139		62307668E0	BASF	
BC-22-00140		62307668E0	BASF	
CAUSTIC SODA				
batch	6.0 - 6.5%	lot no.	supplier	
BC-22-00138		N.A.	CHLOR-AL Chemical Pte Ltd	
BC-22-00139		N.A.	CHLOR-AL Chemical Pte Ltd	
BC-22-00140		N.A.	CHLOR-AL Chemical Pte Ltd	
WATER				
batch	62.5 - 64.4%	lot no.	supplier	
BC-22-00138		N.A.	PUB	
BC-22-00139		N.A.	PUB	
BC-22-00140		N.A.	PUB	
CONSUMPTION				
	per 1 kg of DenimBlu30			remark
ENERGY	0,03 kWh			
WATER	0,70 l			total for process and product
IMPURITIES				
	per 1 kg of DenimBlu30			remark
24 BANNED AMINES	- mg/kg			
ANILINE	950 mg/kg			
HEAVY METALS	- mg/kg			no relevant amounts detected
POLYCYCLIC AROMATIC HYDROCARBONS (PAH)	- mg/kg			no PAH detected

TECHNICAL DATA SHEET

guideline recipes indigo dyeing

preparation of fresh dyebath	slasher dyeing range 2.2 % in 6 dips	rope dyeing range 3.2% in 8 dips
glauber's salt	25 g/L	25 g/L
dispersing agent	1 g/L	1 g/L
wetting agent	1 g/L	1 g/L
sequestering agent	2 g/L	2 g/L
caustic soda 50%	6 mL/L	6 mL/L
hydrosulphite	1 g/L	0.6 g/L
DenimBlu ³⁰ The Original	9 mL/L	7 mL/L

dyebath parameters	slasher dyeing range 2.2 % in 6 dips	rope dyeing range 3.2% in 8 dips
indigo concentration (based on granules)	3.1 g/L	2.4 g/L
hydrosulphite concentration	0.6 g/L	0.3 g/L
pH	11.90	11.90
temperature	30 °C	30 °C
density	1.040 g/mL	1.035 g/mL

feed rates for the dyebath	slasher dyeing range 2.2 % in 6 dips	rope dyeing range 3.2% in 8 dips
DenimBlu ³⁰ The Original	550 mL/min	1582 mL/min
caustic soda 50%	6 mL/L	6 mL/L
hydrosulphite	140 g/min	190 g/min
dispersing agent	7 mL/min	14 mL/min
wetting agent	7 mL/min	14 mL/min
sequestering agent	14 mL/min	28 mL/min

the feed rates listed above correspond to the parameters. however, the pH and the concentrations of indigo and hydrosulphite have to be determined frequently. if necessary the referring feed rates have to be adjusted.

TECHNICAL DATA SHEET

guideline recipes after treatment

washing (after indigo dyeing)		conc	temp	remark
cold rinsing	water	n.a.	25 °C	see below
warm rinsing	water	n.a.	45 °C	see below
hot washing	wetting agent (alkali stable)	2 – 4 g/L	70 °C	
rebeaming preparation	rebeaming aid			rope dyeing only

remarks:

spraying of fresh water evenly on full width of squeezing cylinder

ensure efficient counterflow

exchange wash box after each dye lot

minimum 4 kg of fresh water per 1 kg of yarn

oxidation (after indigo dyeing)		conc	temp	remark
warm washing/neutralisation	acetic acid 60%	3 ml/L	50 °C	pH 4.0
oxidation	H ₂ O ₂ 35% acetic acid 60%	7 ml/L 3 ml/L	70 °C	pH 4.0
hot rinsing	water	n.a.	70 °C	

desizing (enzymatic)		conc	temp	remark
singeing		n.a.		
padding mangle	α-amylase wetting agent sequestering agent	6 - 8 g/L 2 - 4 g/L 1 - 2 g/L	25 °C	pH 6.0 – 7.5 pickup 100%
steamer		n.a.	102 °C	1 - 2 min
rinsing	water	n.a.	25 °C	min 2 times

TECHNICAL DATA SHEET

contact

BluConnection Pte Ltd
15 Tuas Avenue 10
Singapore 139639
tel : +65 6258 6035
fax : + 65 6258 6045
email : mail@bluconnection.com
homepage: www.bluconnection.com

disclaimer

the information contained within this TDS is based on our current knowledge and experience. due to the many factors influencing processing and application, this data does not absolve the processor from performing their own tests and experiments. this information and data also does not imply any legally binding assurance of mentioned properties or of any suitability for any specific purposes. it is the responsibility of our customers, the denim mills, to ensure that any proprietary rights, existing laws and legislation are observed.