

DenimBlu³⁰

PRE-REDUCED INDIGO

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

certified by



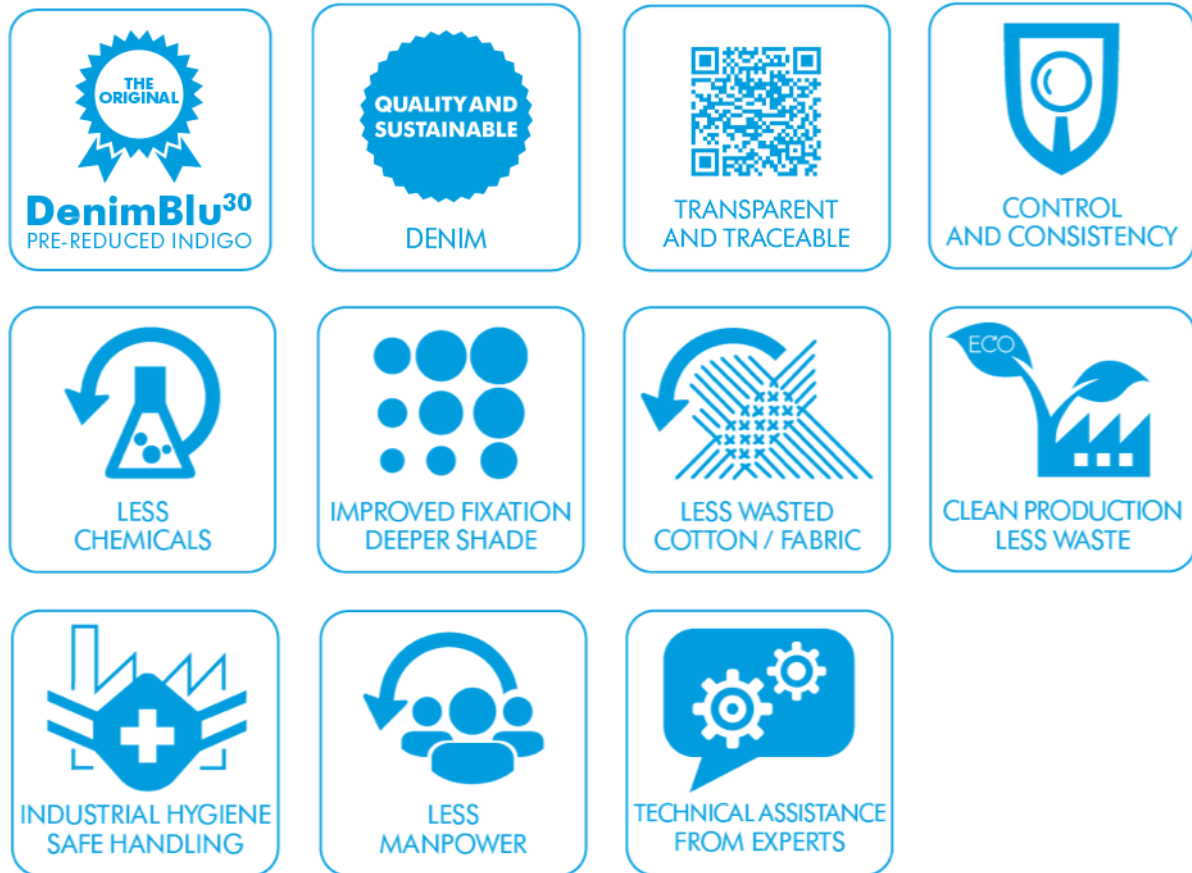
for further information please contact
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BLU³⁰CONNECTION
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TECHNICAL DATA SHEET

BLU CONNECTION
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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		
date	06.06.22		
customer	sample		
production date	04.06.22		
loading date	06.06.22		
lot no.	BC220501-05		
quantity (kg)	25500		


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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

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