

# DenimBlu<sup>36</sup> AR|ARX

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](mailto:mail@bluconnection.com)



**BLU**CONNECTION  
people. passion. projects.

## TECHNICAL DATA SHEET

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### benefits using DenimBlu<sup>36</sup> AR | ARX

- meeting all QEHS requirements
- DenimBlu<sup>36</sup> AR eco passport approved (aniline content < 500ppm)
- DenimBlu<sup>36</sup> ARX eco passport approved (aniline content < 100ppm)
- 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 DenimBlu<sup>36</sup> AR I ARX

- aqueous solution of reduced indigo.
- no inorganic salt deriving from the chemical reduction of indigo.
- density DenimBlu<sup>36</sup> AR I ARX 1.18 g/cm<sup>3</sup> at 20 °C.
- easy to dose.
- based on invoice or lot number or via QR code we provide transparency and traceability of DenimBlu<sup>36</sup> AR I ARX



The image displays two vertical panels, likely representing the front and back of a product label or brochure. Both panels feature a lion's head with blue eyes and a blue and white mane, set against a dark blue background with a subtle pattern of blue dots.

**Left Panel:**

- Top right: A blue arrow pointing right with the text "moving forward".
- Text: "indigo king of dyes" in white and blue.
- Bottom left: A QR code with the text "SCAN HERE" below it.
- Bottom right: The BC logo.
- Bottom: Text "for further information please contact mail@bluconnection.com www.bluconnection.com" and the BLU CONNECTION logo with the tagline "people. passion. projects."

**Right Panel:**


- Top right: A blue arrow pointing right with the text "moving forward".
- Text: "dyed by DenimBlu<sup>36</sup> AR|ARX PRE-REDUCED INDIGO".
- Text: "transparency and traceability" with a "scan here" arrow pointing to a QR code.
- QR code: A QR code with the text "TRANSPARENT AND TRACEABLE" below it.
- Icons and Text in a grid:
  - QUALITY AND SUSTAINABLE DENIM
  - TRANSPARENT AND TRACEABLE
  - OEKO-TEX ECO PASSPORT
  - CONTROL AND CONSISTENCY
  - IMPROVED FIXATION DEEPER SHADE
  - LESS CHEMICALS
  - LESS WASTED COTTON / FABRIC
  - INDUSTRIAL HYGIENE SAFEHANDLING
  - CLEAN PRODUCTION LESS WASTE
  - LESS MANPOWER
  - TECHNICAL ASSISTANCE FROM EXPERTS
- Bottom right: The BC logo.
- Bottom: Text "for further information please contact mail@bluconnection.com www.bluconnection.com" and the BLU CONNECTION logo with the tagline "people. passion. projects."



## TECHNICAL DATA SHEET

### Example

invoice no.	INV220616			
date	06.06.22			
customer	sample			
production date	02.06.22			
loading date	03.06.22			
lot no.	BC220505-06			
quantity (kg)	25500			

  
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**COMPOSITION OF DENIMBLU36 AR  
INDIGO CRUDE**

batch	concentration	lot no.	container	supplier
BC-22-00138	35.5 - 36.5%	22033005-M	wfl-748BC	Wonderful Chemical Industrial Ltd
BC-22-00139		22033006-M	wfl-748BC	Wonderful Chemical Industrial Ltd
BC-22-00140		22033007-M	wfl-748BC	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	7.2 - 7.8%	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	55.2 - 57.2%	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 DenimBlu36 AR	remark
ENERGY	0,03 kWh	
WATER	0,61 l	total for process and product

**IMPURITIES**

	per 1 kg of DenimBlu36 AR	remark
24 BANNED AMINES	- mg/kg	
ANILINE	385 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

<b>preparation of fresh dyebath</b>	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 <sup>36</sup> AR I ARX	7.5 mL/L	6 mL/L
<b>dyebath parameters</b>	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
<b>feed rates for the dyebath</b>	slasher dyeing range 2.2 % in 6 dips	rope dyeing range 3.2% in 8 dips
DenimBlu <sup>36</sup> AR I ARX	440 mL/min	1260 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

## TECHNICAL DATA SHEET

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.

### guideline recipes after treatment

<b>washing (after indigo dyeing)</b>		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

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

<b>desizing (enzymatic)</b>		conc	temp	remark
singeing		n.a.		
padding mangle	α-amylase wetting agent sequestering	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

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