



Ecoplus

Pre-Reduced Sulphur Liquid Dyes for Sensitive Yarns



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Ecoplus Dyes are stable pre-reduced liquid sulphur dyestuffs that are highly versatile and afford great flexibility in application.

Less Energy, Less Fabric Waste, Less Dye

- More primary shade groups results in:
- Optimum lot sizes
- Reduced dye consumption
- Reduced fabric inventories
- Reduced cotton consumption
- Optimized fixation and less contamination due to the lower application temperature
- Ability to dye at lower temperature results in lower Co2 emissions in addition to savings energy consumption.

High Reproducibility with on tone wash-down

- Low temperature dyeing results in better dye bath stability
- Significant reduction in stripping in indigo, hence reduced contamination especially in case of topping processes
- Ecoplus dyes are characterized by their on-tone wash downs due to lower sensitivities to pH and temperature during the post-garmenting washnprocess

Low temperature application, avoiding breakage on delicate yarns

- Less aggressive dyeing conditions in terms of temperature and caustic penetration results in less brittle yarn
- Maintaining the stability of the yarn for subsequent process like opening and weaving, is vital to achieve good performance of the entire operation
- The option to use finer yarn counts becomes available compared to the conventional dyeing process

Denim

Ecoplus pre-reduced sulphur liquid dyestuffs are perfect choice for all denim relation applications.

- Sulphur bottoming and topping (or combination of both ie sandwich dyeing)
- Color denim

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	PROPERTIES											
	Light Fastn		Wash Fastness ISO 105 C01			Chlorine		Other			40 g / L	120 g / L
	1/1	1/3	Effect	Staining on co	Staining on vis	Stability	Effect on Shade	Affinity	Oxidation Response			
SUN YELLOW R	4	3-4	4-5	4-5	5	M	R	H	M			
APRICOT TAN Y	4	3-4	4-5	4-5	5	M	R	M	M			
TEA ROSE R	5	4-5	4	4	4	H	U	L	F			
GOLD BROWN 2Y	5	4-5	4-5	5	5	L	Y	M	M			
DUNE BROWN G	5-6	5	5	5	5	L	R	L	M			
ALMOND BROWN RY	5	4-5	4-5	5	5	L	N/A	M	M			
BRICK BROWN R	6	5-6	4	4-5	4	H	U	L	S			
RUBY BROWN 3R	6	5-6	4	4-5	4	MH	R	LM	S			
BRONZE BROWN GY	4	3-5	4-5	4-5	5	M	Y	M	M			
SAGE OLIVE Y	4	3-4	4-5	4-5	5	M	Y	H	M			

The information and recommendations presented here were compiled with utmost care, but cannot be extended to cover every possible case. They are intended to serve as non binding guidelines and must be adapted to the prevailing conditions.

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	1/1	1/3	Effect	Staining on co	Staining on vis	Stability	Effect on Shade	Affinity	Oxidation Response		
STONE OLIVE Y	5-6	5	4	4-5	4	L	B	MH	F		
HENNA OLIVE B	5-6	5	4	4-5	4	L	N/A	MH	F		
INDIGO BLUE 2G	5	4-5	4	4-5	4-5	LM	B	L	F		
VIOLET BLUE 2R	5	4-5	4	4-5	4-5	L	D	L	F		
CROWN BLUE R	5	4-5	4	4-5	4-5	L	D	L	F		
MONSOON GREY R	5-6	5	4	4-5	5	L	Y	M	F		
GOTHIC GREY 2G	6	5-6	4	4-5	5	L	Y	M	M		
PHANTOM GREY 2R	4-5	4	4	4-5	4-5	L	Y	M	F		
BLUE BLACK 2B	4	4-5	4	4-5	5	L	Y	M	M		
SUPER BLACK W	5-6	5	4	4-5	5	L	Y	M	F		

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CONVENTIONAL DYEING

Additions	Dye Bath g/L	Feeding Bath g/L
Denimoz Sequadet FBN	1-3 g/L	2-6 g/L
Denimoz Hiwet NF	2-8 g/L	3-12 g/L
Caustic Soda Flakes	2-4 g/L	4-8 g/L
Sulfaid Antioxydnat IY	4-8 g/L	8-16 g/L
Ecoplus Liquid	X g/L	Y g/L

NOTE:

1. Application Temperature 40° C–80° C
2. Application pH (at RT) 12.2.12.5
3. ORP -620 to -650mV
- 4. It is recommended that pH and ORP is checked and maintained as mentioned above**



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ECOLOGICAL DYEING

Additions	Dye Bath g/L	Feeding Bath g/L
Denimoz Sequadet FBN	1-3 g/L	2-6 g/L
Denimoz Hiwet NF	2-8 g/L	3-12 g/L
Caustic Soda Flakes	6 -10 g/L	9-16 g/L
Safeaux Reducer G	13-20 g/L	18-32 g/L
Ecoplus Liquid	X g/L	Y g/L

NOTE:

1. Application Temperature 60° C- 80° C
2. Application pH (at RT) 12.2.12.5
3. ORP -620 to -650mV
- 4. It is recommended that pH and ORP is checked and maintained as mentioned above**



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CHEMICAL OXIDATION DYEING

Additions	Oxidation Bath g/L	Feeding Bath g/L
Denimoz Neutrabuff OCN	2-5 g/L	3-9 g/L
Acetic Acid	1-3 g/L	2-6 g/L
Sulfaid Oxydant ION	3-6 g/L	5-10 g/L

NOTE:

1. Application Temperature 55° C
2. Application pH (at RT) 4.0 – 4.5
3. ORP +150 to +200mV
4. **It is recommended that pH and ORP is checked and maintained as mentioned above**



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PAD -STEAM

	Chemicals	Dosage		Parameters		
		g/L	Temp	ORP	pH	
A Dyeing	Denimoz Sequadet FBN	1-2				
	Denimoz Hiwet NF	1-2				
	Ecoplus Dye	x	RT	-600 to -650 mV	12.2-12.5	
	Sulfaid Antioxydant IY	6-8				
	Caustic Soda Flakes	1-2				
B Steaming	102-104° C for 75-90 sec					
C Water lock	40° C		40			
D Wash			RT			
E Oxidation	Sulfaid Oxydant ION	3-5	40-70	+150 to 200 mV	4-5	
	Denimoz Neutrabuff OCN	2-4				
F Oxidation	Sulfaid Oxydant ION	3-5	40-70	+150 to 200 mV	4-5	
	Denimoz Neutrabuff OCN	2-4				
G Wash			RT			
H Soaping	Denimoz Executor IAS	0.7-1.0 g/L	80° C			
I Wash			RT			
J Wash			RT			
Followed by Drying						



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JIGGER DYEING

Process	Ends	Temp	Redox	pH	Addition / Remarks	Dosage
Wetting	Add equally over 2 ends	45° C			Denimoz Hiwet NF	0.5- 1.0 g/L
					Denimoz Sequadet FBN	1-3 g/L
					Sulfaid Antioxydant IY	4-6 g/L
					Caustic Soda Flakes	1-2 g/L
Dyeing	2	45° C	- 600 mV	12.2-12.5	Dyes solution (In water), Add equally over 2 ends	X% o.w.f
	2	45° C			Vaccum Salt	20-25 g/L
	6-8	55° C			Run	
Drain						
Cold Wash	2	RT			Overflow till clear Liquid	
Drain						
Oxidation	3	50° C	150 - 200 mV	4.0-5.0	Denimoz Neutrabuf OCN	2-3 g/L
					Sulfaid Oxydant ION	2-3 g/L
					Denimoz Executor IAS	0.3-0.5 g/L
Drain						
Soaping	2	80° C			Denimoz Executor IAS	0.7-1.0 g/L
Drain						
Cold Wash	2	RT				

NOTE:

1. M: L = 1:1 to 1:3
2. In case of Glauber salt add 15g/L
3. For Blues Dyeing temperature should not be more than 45° C
4. In case of Viscose/Viscose blended substrate use Soda Ash in place of caustic soda to achieve pH
5. **It is recommended that pH and ORP is checked and maintained as mentioned above**
6. **Package yarn/Printing/ Coating/ Tint coat application process are available on requests.**