



Ecovat

Modified Liquid Vat Dyes



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Ecovats

Ecovats dyes are modified vat dyes, containing carefully controlled amounts of reducing agent in order to obtain best stability in storage and colour yield in use. Since these dyes are pre-reduced, they have substantivity for cellulose and are therefore ready for dyeing, although an addition of extra reducing agent may be required.

After application to the fibre, the dyestuff is converted back into the water-insoluble form by oxidation, similar to vat dyes, which results in dyeing with very good fastness to wet treatments.

Salient Features

- Excellent Chlorine fastness
- No dissolution required
- Higher productivity due to shorter dyeing time
- Good all round fastness properties
- Compatibility with vat dyes for combination shades in all proportions
- Free from banned amines and compliance with Euro Norms
- No Sodium Sulphide, Low salt addition, therefore lesser load on effluent treatment

Scope of Application

The good fastness standards of **Ecovats** make them especially suitable for the following cotton rich textiles

- Warp denim
- Corduroys
- Apron fabrics
- Linings
- Outerwear poplins
- Sewing thread
- Yarn
- Garments

The dyestuffs are equally suitable for dyeing the cotton component of blends with polyester fibres.

General Application methods

Ecovats are applicable by Exhaust dyeing and continuous/semi-continuous dyeing
Application is followed by oxidation, rinsing and soaping

A.Exhaust Methods

1. Jigger
2. Winch
3. Cabinet
4. Tank Dyeing

B.Continuous/Semi-continuous Methods

1. Pad-Steam
2. Pad-Dry/Pad-Steam

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	PROPERTIES											
	Light Fastn		Wash Fastness ISO 105 C01			Chlorine		Other				
	1/1	1/3	Effect	Staining on co	Staining on vis	Stability	Effect on Shade	Affinity	Oxidation Response	40 g / L	120 g / L	
NUGGET GOLD VLW	5	4-5	4-5	4-5	5	M		LM	M			
RUSSET ORANGE VL	5	4-5	4	4	4	M		LM	M			
BLUSH RED C2L	5	4-5	4	4	4	H	u	L	F			
RED BROWN C2W	6	5-6	4	4-5	4	H	u	L	S			
BROWN STONE CR	6	5-6	4	4-5	4	H	u	L	S			
SEAL BROWN CBR	5	4-5	4-5	5	5	H	r	L	S			
LILAC GREY CRR	5	4-5	4-5	5	5	H	r	L	S			
ULTRA GREEN CW2L 200	5	4-5	4	4-5	4-5	H	u	L	F			
BRIGHT BLUE EBG	5	4-5	4	4-5	4-5	H	u	L	F			

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	1/1	1/3	Effect	Staining on co	Staining on vis	Stability	Effect on Shade	Affinity	Oxidation Response		
BLUE GREEN C2BL2	5	4-5	4	4-5	4-5	H	u	L	F		
DENIM BLUE CL	5	4-5	4	4-5	4-5	ML		L	MF		
SUPREME BLUE C3LW	5	4	4	3-4	4	H	u	L	M		
INDIA INK V3W	5	4	3-4	4	4-5	MH	b	L	M		
SAGE GREY CGG	5	4-5	4-5	5	5	H		L	M		
METAL GREY CB	5	4-5	4-5	5	5	H	r	L	MS		
BLUE BLACK CBL	5	4	4	3-4	4	H		L	MS		
INDO BLACK C3L	5	4-5	4-5	5	5	H	r	L	S		



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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**



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GARMENT DYEING

Process	Time	Temp	Redox	pH	Addition / Remarks	Dosage
Wetting	10 min	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	10 min	45° C	-590 - 610	12.2-12.5	Dyes solution (In water)	X% o.w.f
	10 min	45° C			Vaccum Salt	20-25 g/L
	45 min	55° C			Run	
Drain						
Cold Wash	5 min	RT			Overflow till clear Liquid	
Drain						
Oxidation	15 min	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	0.7-1.0 g/L
Drain						
Wash	5 min	50° C				

NOTE:

1. M: L = 1:1 to 1:3
2. Drum RPM = 11-15 for Knits and 18-20 for Denim
3. Avoid opening the Drum door for Chemical Addition
4. Addition of Dye and Salt in four Portions
5. In case of Glauber salt add 15 g/L
6. For Blues Dyeing temperature should not be more than 45° C
- 7. It is recommended that pH and ORP is checked and maintained as mentioned above**



Ecosol / Ecovat Blacks

GARMENT DYEING

Process	Time	Temp	Redox	pH	Addition / Remarks	Dosage
Wetting	10 min	60° C			Denimoz Hiwet NF	0.5- 1.0 g/L
					Denimoz Sequadet FBN	1-3 g/L
					Sulfaid Antioxydant IY	6-8 g/L
					Caustic Soda Flakes	2-4 g/L
Dyeing	10 min	60° C	-650 mV	12.2-13.0	Dyes solution (In water)	X% o.w.f
	10 min	60° C			Vaccum Salt	20-25 g/L
	45 min	90° C			Run	
Drain						
Cold Wash	5 min	RT			Overflow till clear Liquid	
Drain						
Oxidation	15 min	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	0.7-1.0 g/L
Drain						
Wash	5 min	40° C				

NOTE:

1. M: L = 1:10
2. Drum RPM = 11-15 for Knits and 18-20 for Denim
3. Avoid opening the Drum door for Chemical Addition
4. Addition of Dye and Salt in four Portions
5. In case of Glauber salt add 15 g/L
- 6. It is recommended that pH and ORP is checked and maintained as mentioned above**



Ecosol Black W

GARMENT DYEING

Process	Time	Temp	Redox	pH	Addition / Remarks	Dosage
Wetting	10 min	40° C			Denimoz Hiwet NF	0.5- 1.0 g/L
					Denimoz Sequadet FBN	1-3 g/L
					Sulfaid Antioxydant IY	6-8 g/L
					Caustic Soda Flakes	2-4 g/L
Dyeing	10 min	40° C	-650 mV	12.5-13.0	Dyes solution (In water)	X% o.w.f
	10 min	40° C			Vaccum Salt	20-25 g/L
	45 min	40° C			Run	
Drain						
Cold Wash	5 min	RT			Overflow till clear Liquid	
Drain						
Oxidation	15 min	40° 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	0.7-1.0 g/L
Drain						
Wash	5 min	40° C				

NOTE:

1. M: L = 1:10
2. Drum RPM = 11-15 for Knits and 18-20 for Denim
3. Avoid opening the Drum door for Chemical Addition
4. Addition of Dye and Salt in four Portions
5. In case of Glauber salt add 15 g/L
- 6. 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				
	Ecosol / Ecovat 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						