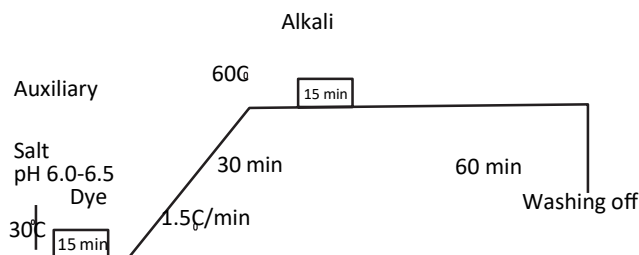


ECOFIX™ “ME” Bifunctional Dyes

Ecofix “ME” (Medium Exhaust) i.e. BIFUNCTIONAL Dye are low temperature high exhaust Reactive Dyes suitable for Dyeing Padding and printing of all dyes of cellulosic material. These dyes offer high grade of all round fastness properties. They offer leveling properties and excellent alkalis stability. Fixation temperature of these dyes is 60°-45° C

Exhaust Dyeing



Single Alkali Method

Salt and Alkali Requirements

% Dye	Common Salt (g/l)	Soda Ash (g/l)
< 0.1	20	5
0.1 – 0.5	20-25	5-7
0.5-1.0	25-40	7-10
1.0-2.0	40-50	10-13
2.0-3.0	50-60	13-15
3.0-5.0	60-80	15-20
5.0-7.0	80-90	20
>7.0	100	20

Mixed Alkali Method

Salt and Alkali Requirements

%Dye	Common Salt (g/1)	Soda Ash (g/1)	Caustic Flakers (g/1)
<0.1	20	5	0
0.1-0.5	20-25	5	0.3-0.38
0.5-1.0	25-40	5	0.38-0.45
1.0-2.0	40-50	5	0.45-0.6
2.0-3.0	50-60	5	0.6-0.75
3.0-5.0	60-80	5	0.7-1.0
5.0-7.0	80-90	5	1.0
>7.0	100	5	1.0

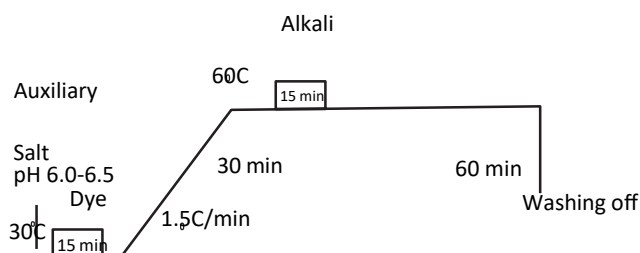
Advantages

- Commodity bifunctional dyes for economical shades • Good built-up behavior for deep shades
- Wide range of products to cover brand shade gamut • Good wash fastness levels & good reproducibility

ECOFIX™ “VS” Vinyl Sulphone Dyes

ECOFIX™ “VS” (Vinyl Sulphone) DYES. Reactive Dyes possessing Vinyl sulphone as the reactive group. In presence of Alkali, these dyes chemically react with the hydroxyl group of cellulose and form firm, covalent linkages. These dyes are having very good feature like, good solubility even in presence of alkali, very good fastness property & suitable for resist & discharge printing very much effectively. These dyes applied by exhaust method at the optimum temperature of 60°-65°C

Exhaust Dyeing



Single Alkali Method

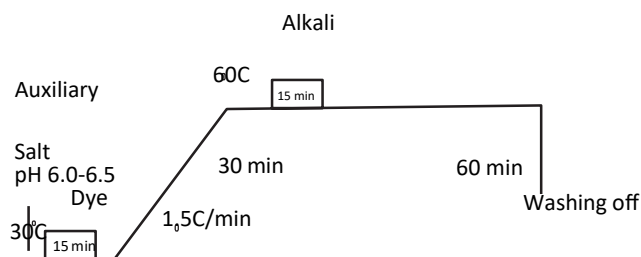
%Dye	Common Salt (g/l)	Soda Ash (g/l)
<0.1	20	5
0.1-0.5	20-25	5-7
0.5-1.0	25-40	7-10
1.0-2.0	40-50	10-13
2.0-3.0	50-60	13-15
3.0-5.0	60-80	15-20
5.0-7.0	80-90	20
>7.0	100	20

Mixed Alkali Method

Salt and Alkali Requirements

%Dye	Common Salt (g/1)	Soda Ash (g/1)	Caustic Flakes(g/1)
<0.1	20	5	0
0.1-0.5	20-25	5	0.3-0.38
0.5-1.0	25-40	5	0.38-0.45
1.0-2.0	40-50	5	0.45-0.6
2.0-3.0	50-60	5	0.6-0.75
3.0-5.0	60-80	5	0.75-1.0
5.0-7.0	80-90	5	1.0
>7.0	100	5	1.0

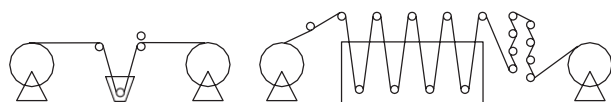
Turquoise Dyeing Method



Salt and Alkali Requirements

%Dye	Glaubers Salt (g/1)	Soda Ash (g/1)
<0.1	20	3
0.1-0.5	20-25	3
0.5-1.0	25-40	3-5
1.0-2.0	40-50	5-8
2.0-3.0	50-60	8-10
3.0-5.0	60-80	10-12
5.0-7.0	80-90	15
>7.0	100	20

Cold pad Batch Dyeing



Mixing pump required

Add 10-100 g/1 Urea to dye liquor (necessary for solubility)

Silicate Method

%Dye (g/1)	Sodium Silicate (38°Be)	Caustic Flakes (g/1)
<5	100ml/l	2
10-20	100ml/l	3-3.5
20-30	100ml/l	3.5-4.0
30-40	100ml/l	4.0-4.5
40-60	100ml/l	4.5-5.0
60-80	100ml/l	5.0-5.5
80-100	100ml/l	5.5-7.0

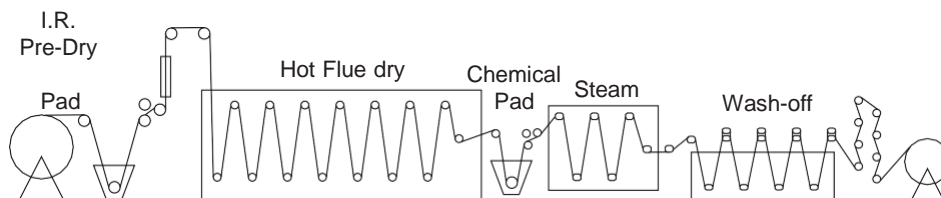
Batch 16 hrs at 25°C

Silicate Free Method

Dye (g/1)	Soda as (g/1)	Caustic Flakes (g/1)
20	30	2
40	30	3
20-30	30	4
30-40	30	5
40-60	30	6
60-80	30	7

Batch 24 hrs at 25°C

Pad-Dry-Chemical Pad-Steam Method



Pad: dye, wetting agent, anti-migrant, mild oxidant

IR Per-Dry, Dry : 110-130°C, Chemical Pad

Advantages

ECOFIX™ "VS" Dyes

- Economical multi use product range
- Range of product suitable for Discharge ground
- Broad selection available from wide shade image
- Good fastness properties

Abbreviations

BL-Bluer	Y-Yellower
Br-Brighter	S-Suitable
DL-Duller	NS-Not suitable
Dk-Darker	CO-Cotton
G-Greener	CV-Viscose
R-Redder	

Dischargeability

D- Dischargeable
F-Fair (Partial dischargeable)
P- Poor (Non dischargeable)

Product Placement Chart

Product	Placement	Warm exhaust	Hot exhaust	Cold pad batch	Pad dry chemicals pad steam	Printing
ECOFIX™ "ME"	Economical warm exhaust dyeing	S		S		
ECOFIX™ "VS"	Commodity multi-use vinayl sulphone	S		S	S	S

Printing Methods:

1. Print with alkali-dry-steam (5-10 Min.) at 100-120°C on rapid ager or 15-20 Minutes at 90°C
2. Print with alkali-dry-thermofix for 5 Minutes at 150°C or 1 minute at 90°C
3. Print without alkali-dry-pad with alkaline solution-flash age for 15-45 seconds.
4. Print without alkali-dry-nip pad with sodium silicate, 45°C Be (100-102°Tw)-Batch for 16 hrs. and wash. This type of dyes as this class of dyestuffs give excellent fixation goods washing off and brilliant prints.

(The information contained in this SHADE CARD has been provided In good faith and to be best of our knowledge But WITHOUT WARRANTY. Customers are requested to test the product as to their suitability for any application, use or processing.)