

Advantages

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

Product placement

- Light shades - Yellow GR
Orange 3R
Red BB
Blue BB
- Medium shades - Golden Yellow RNL
Red RB
Blue BB
- Deep shades - Golden Yellow RNL
Red RB
Navy Blue GG
Black B

Abbreviations

- Bl - Bluer
Br - Brighter
Dl - Duller
Dk - Darker
G - Greener
R - Redder
Y - Yellower
S - Suitable
NS - Not suitable

Dischargeability

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



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Fashion Full of Color is...

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Kirazol VS Dyes

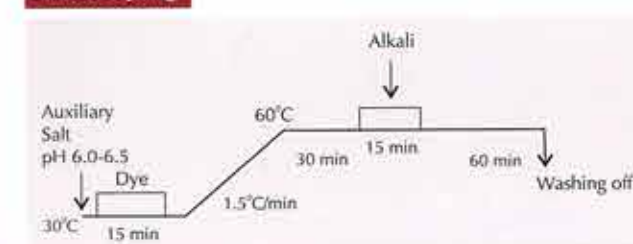
Product Placement Chart

Products	Placement	Value Added				
		Warm exhaust	Hot exhaust	Cold pad batch	Pad dry chemical pad steam	Printing
Kirazol KR	Difficult shades	S		S	S	
Kirazol KX Conc.	High performance dyeing (deep shades)	S		S	S	
Kirazol KX	High performance dyeing (Mid - Dp shades)	S		S	S	
Kiractive P	High performance printing					S
Kiractive KF	Better reproducibility	S		S		
Kirazol KV	High strength shades	S		S	S	
Kiractive HE	Economical high temperature dyeing		S			
Kiractive ME	Economical warm exhaust dyeing	S		S		
Kirazol VS	Commodity multi-use vinyl sulphone	S		S	S	S

Kirazol VS Dyes		Product Name	Processes				Solubility g/l		Light Fastness				Washing		Water		Perspiration E04				Rubbing		M&S C10A		
			Exhaust Dyeing	Semicontinuous Dyeing	Continuous Dyeing	Dischargeability	Water - 30°C	Salt (90 g/l) - 50°C	CO3		E01		Acidic		Alkaline		X12	Change in colour (Damage to Oxidative Bleach)	Chlorinated Water 20mg/l	Change in colour (Damage to Oxidative Bleach)	Chlorinated Water 20mg/l				
									Change in colour	Stain (cotton)	Change in colour	Stain (cotton)	Change in colour	Stain (cotton)	Change in colour	Stain (cotton)						Dry Rubbing	Wet Rubbing		
1%	4%	Yellow FG	S	NS	NS	D	150	150	4	3-4	4	3-4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3-4	2-3
		Brilliant Yellow GL	S	S	S	F	200	<20	4-5	4	6-7	6	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4	4
		Yellow GR	S	S	S	D	200	60	4-5	4	6	5-6	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4	3-4
		Golden Yellow RNL	S	S	S	D	200	200	4	3-4	4	3-4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4	3-4
		Golden Yellow R	S	NS	NS	D	60	60	4	3-4	3-4	3	4-5	4-5	4-5	4	4-5	4	4-5	4	4-5	4-5	4	4	3
		Orange 2R	S	NS	NS	D	150	150	3-4	3	3-4	3	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4
		Orange 3R	S	S	S	F	80	<20	4	3-4	4	3-4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3	3-4
		Red BB	S	NS	NS	D	150	<20	4	3-4	4	3-4	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	3
		Red RB	S	S	S	P	200	<20	3-4	3	3-4	3	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	3
		Red BS	S	S	NS	P	200	200	3-4	3	3-4	3	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3
		Red 5B	S	S	NS	D	80	20	3-4	3	3	2-3	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	3-4
		Brilliant Red F3B	S	S	NS	P	200	200	4	4	4	3-4	4-5	4	4-5	4	4-5	4	4-5	4	4-5	3-4	4-5	3-4	3
		Violet 5R	S	S	S	F	100	100	4-5	4	6	5-6	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4	3-4

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1%	4%	Blue 3R	S	S	S	F	150	<20	4-5	4	6	5-6	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4	3
		Blue R	S	NS	NS	P	120	100	4-5	4	6	5-6	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4
		Blue BB	S	S	S	F	200	150	4-5	4	6	5-6	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4
		Turquoise Blue G	S	S	NS	P	150	<20	4-5	4	6	5	4	3	4-5	3-4	4-5	4	4	3-4	4-5	3	4	3	
		Turquoise Blue H2GP	S	NS	NS	P	200	<20	4-5	4	4	4	4-5	3	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4	3	4-5
		Navy Blue GG	S	S	S	D	200	200	3-4	3	4	3	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	3-4
		Black B	S	S	NS	D	200	150	3-4	3	3-4	2-3	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3-4	3
		Black RL	S	NS	NS	P	120	100	4	3-4	4	3	4-5	4	4-5	4-5	4	4-5	4	4-5	4-5	4-5	4	4	2-3
3%	6%	Fastness at 6% depth																							
		Black N 150%	S	S	S	F	200	200	4	---	3-4	---	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	3
		Black JNN	S	S	NS	F	200	200	4	---	3-4	---	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	2-3	4-5

Exhaust Dyeing



Single Alkali Method

Salt and Alkali Requirements

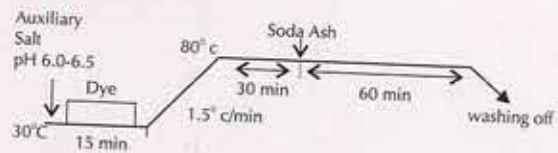
% Dye	Common Salt (g/l)	Soda Ash (g/l)
< 0.1	20	5
0.1 - 0.5	20 - 25	5 - 7
0.5 - 1.0	25 - 40	7 - 10
1.0 - 2.0	40 - 50	10 - 13
2.0 - 3.0	50 - 60	13 - 15
3.0 - 5.0	60 - 80	15 - 20
5.0 - 7.0	80 - 90	20
> 7.0	100	20

Mixed Alkali Method

Salt and Alkali Requirements

% Dye	Common Salt (g/l)	Soda Ash (g/l)	Caustic Flakes (g/l)
< 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

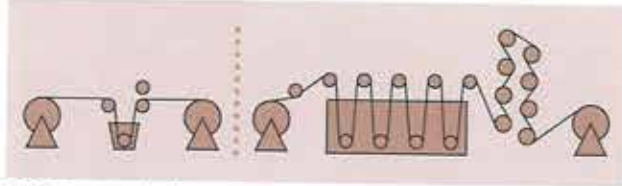
Turquoise Dyeing Method



Salt and Alkali Requirements

% Dye	Glaubers Salt (g/l)	Soda Ash (g/l)
< 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/l Urea to dye liquor (necessary for solubility)

Silicate Method

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

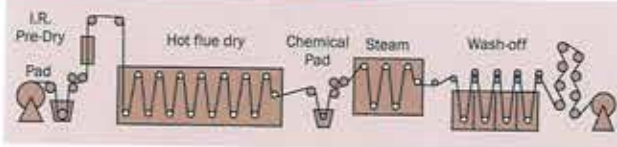
Batch 16 hrs at 25 °C

Silicate Free Method

Dye (g/l)	Soda ash (g/l)	Caustic Flakes (g/l)
20	30	2
40	30	3
60	30	4
80	30	5
100	30	6
>100	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

Dye (g/l)	Common Salt (g/l)	Soda Ash (g/l)	Caustic Flakes (g/l)
< 20	250	20	1.5
20 - 40	250	20	2
> 40	250	20	3

Steam : 90 secs (Saturated Steam)