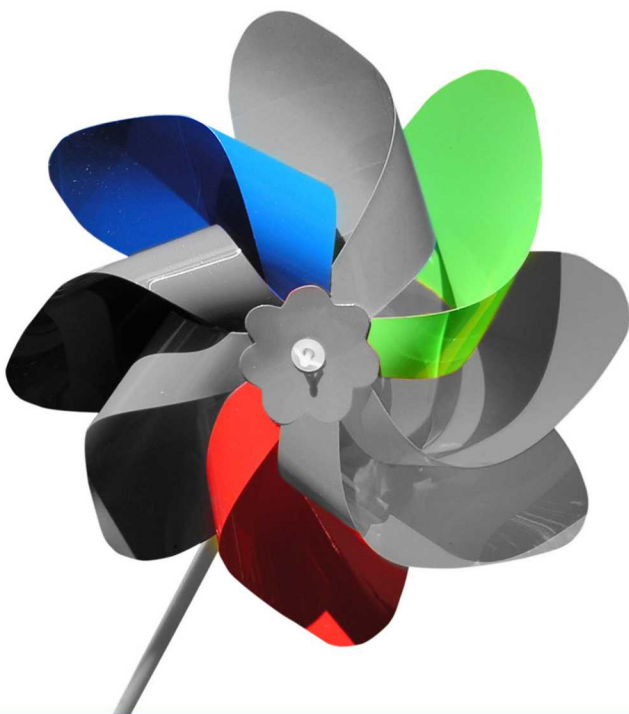


**S**PECTRON™  
Reactive Dyes

**RFD**



**COLOURS**  
INDIA INC

Product Name		Spectron	Yellow RFD	Red RFD	Blue RFD	Navy RFD
Shade %			2.9	3.2	2.0	1.6
Dyeing on Bleached Hosiery Material						
S.D.			1/1	1/1	1/1	1/1
Light Fastness (Day Light)	1/6 SD		5	4-5	4	2-3
	1/1 SD		5-6	5	5	3
Washing Fastness Shade/Stain	ISO 105 CO 3		5/5	5/5	5/5	5/4-5
	ISO 105 CO 4		5/4-5	5/4-5	5/5	4-5/4-5
Perspiration Fastness Shade/Stain	Alkaline		5/4-5	5/4-5	5/5	5/5
	Acid		5/5	5/5	5/5	5/5
Hypochlorite Shade/Stain	Bleaching		3	4	4	3-4
Mercerising Fastness Shade/Stain			2R/4-5	2B/3-4	5*/4	5*/3-4
Dischargeability			D	ND	D	D
Fixation Temperature °C			60	60	60	60
Solubility g/l	Neutral		100	100	100	100
	With 50g/l, Salt		15	15	15	15
Affinity			H	H	H	H

**D** - Dischargeable  
**MD** - Moderately Dischargeable  
**ND** - Non-Dischargeable  
**H** - High  
**M** - Medium  
**L** - Low

**Y** - Yellower  
**B** - Bluer  
**R** - Redder  
**\*** - Deepening of Shade

**Fastness Rating** :  
**Light** : 1 to 8 increasing order  
**Washing & Others** : 1 to 5 increasing order

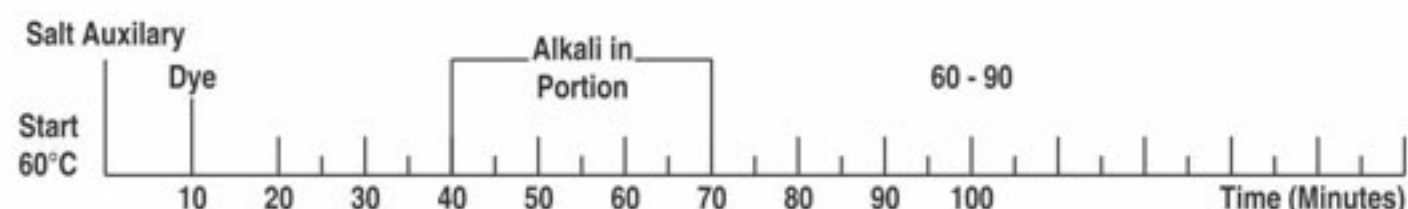


# Spectron 'RFD' Dyes

## Features:

- Complete range for cotton knit fab and yarn.
- Cost effective.
- Good built up in deep shade.
- High reproducibility.
- Meets major ecological standards and fastness requirements
- Suitability for Exhaust dyeing at 50°C & 60°C, Cold Pad Batch, PDPS & Printing.
- Ultra RFD=High build up, reduce lead time, high productivity, easy wash off, with stand to multiple wash cycle with activated bleach detergent, low loading of effluent.

## Exhaust Dyeing: Standard Method



- 1 Load the machine and run the substrate in liquor at 60°C for 10 minutes. Adjust the pH to 6.5 - 7 with acetic acid, if necessary.
- 2 Work for 10 minutes. Then add dye liquor linearly and run for 30 minutes at set temperature.
- 3 Add alkali in progression or in portion wise in 30 minutes.
- 4 Run the machine for further 60-90 minutes depending on depth of shade.
- 5 Drain.
- 6 Washing: Cold wash in continuous water flow  
Hot wash at 60°C with neutralisation with acetic acid. pH 5-6  
Hot wash at boil 2 to 3 times depending on depth of shade  
Hot wash at 70°C  
Cold wash

## Chemicals for Dyeing at 60°C on 100% bleached non mercerised cotton.

### Material Liquor Ratio: 1:10

METHOD	Dye conc. %	< 0.1	0.1-0.5	0.5-1.0	1.0-2.0	2.0-3.0	3.0-5.0	> 5.0
		G. Salt gpl	20	25	30-40	40-50	50-60	60-80
MIX ALKALI	Soda Ash gpl	5	5	5	5	5	5	5
	Caustic Soda 30°Be ml/l	—	1.5-2	2-2.5	2.5-3	3-4	4-5	5
ONLY	Soda Ash gpl	5	10	10	15	15	20	25

## COLD PAD BATCH PROCESS:

Padding Temperature	Sodium Silicate g/l	ml/l of Caustic Soda 30°Be			
		< 30 g/l dye	30-40 g/l dye	40-70 g/l dye	> 70 g/l dye
20°C Standard Variant	85	7	14	22	28
30°C Tropical Variant	85	1.5	5	7	10

**Sodium Silicate Grade:** 58-60°Be, Na<sub>2</sub>O:SiO<sub>2</sub> **Ratio:** 1 : 2.1

**Procedure:** Prepare the dye solution and alkali solution in the ratio 4:1 at 20°C. Mix the two solutions just before padding manually or using dye alkali mixer and feed to the padder bath of small capacity. Pad the cold fabric at 25°C with 70-75% pickup on cotton at constant speed. Batch the fabric on roller taking care to align the selvedge. Then roller is completely covered with polythene sheet & tied firmly close to the selvedge. Rotting of the fabric roll during dwelling period will help in easy unwinding and avoid collection of dye liquor at the bottom of roller in case of high pickup of liquor.

## Dye-Alkali mixer is recommended

Pad, dwell at 30°C for 10-12 hours. For STANDARD VARIANT.  
And for TROPICAL VARIANT dwell for 18-24 hours.

## After Treatment:

Cold Wash, Hot wash at 60°C twice with 1g/l sodium hexa meta phosphate  
Hot Wash at 80°C  
Hot wash near to boil ( 2 or 3 washes depending upon depth of shade)  
Hot wash at 70°C  
Cold wash, Adjust final pH 5-6 with acetic acid

(The information contained herein is provided in good faith without warranty)



Certificate No.: 6768QMS001

 **COLOURS**  
**INDIA INC**

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