



**HARDIK**  
DYE CHEM IND.



**VIKAS**  
DYES & CHEMICAL IND.



**SHADE CARD**

# DISPERSE DYES

## INTRODUCTION

These range of Disperse dyes manufactured and marketed by M/s. HARDIK DYES CHEM INDUSTRIES. These dyes are suitable for application on polyester in various forms and polyester component in the blends. They are available in micro-dispersed form and are easily dispersible in water and can be mixed with one another for producing wide range of shades.

They possess excellent dispersion and build-up properties and also have good stability in printing paste.

## PRE-TREATMENTS :

Polyester and Polyester blends should be scoured in order to remove impurities before dyeing. After scouring material should be rinsed well in warm water containing 1 part of acetic acid (30%) per 1000 parts and then in plain water. When polyester fibres are to be scoured and dyed in package form, it is advantageous to scour at 100°C.

## PREPARATION OF DYESTUFF DISPERSION :

Sprinkle required quantity of dyestuff into ten times its volume of soft water, at a temperature 45°C - 50°C with continuous stirring. Sequestering agent could be used, if soft water is not available.

## DYEING :

### CARRIER DYEING METHOD

Set dye bath with

X%	Disperse Dyes
0.5 gm/l	Anionic dispersing agent
2-5%	Suitable Carrier
	pH adjusted to 4.5-5.5 with acetic acid

Set the dye-bath at 60°C with dispersing agent and acetic acid at pH 4.5 to 5.5 and work the material for 10 to 15 minutes. Add emulsified carrier and treat the material for 10 minutes. Add dyestuff and treat the material for 15 minutes at 60°C and raise to 120°C to 106°C within 50 to 60 minutes and dye at this temperature for 60 to 100 minutes depending upon the shade. The material is rinsed and reduction cleared. The pH value of the dye bath should be maintained between 4.5-5.5 during the entire dyeing process.

### HTHP DYEING METHOD

Set dye bath with

X%	Disperse Dyestuff
0.3 to 0.5 gm/l	Dispersing agent
0.5 to 1 gm/l	Levelling agent
	pH adjusted to 4.5 to 6 with acetic acid

Set the dye-bath at 60°C with dispersing agent and treat the material for 10 minutes. Add Dyestuff and the temperature is raised uniformly to 130°C in 30 minutes. The dyeing is carried out at this temperature for a period of 15-45 minutes. On completion of dyeing, the dyebath is cooled to 85°C and drained at this



temperature for a period of 15-30 minutes. On completion of dyeing, the dyebath is cooled to 85°C and drained at this temperature. The material is rinsed and reduction cleared.

### THERMOSOL DYEING METHOD

Pad with

X gm/l	Dyestuff
2 gm/l	Sodium Alginate
1 gm/l	Ammonium Sulphate
5-10 gm/l	Suitable Dispersing agent
0.5 gm/l	Citric Acid
	Adjust pH to 5

Well prepared fabric is padded two-dips two-nips at room temperature using 50-60% expression through the pad liquor. The padded fabric is dried to a residual moisture of 30%. Then the fabric passes to hot flue or float drier where it is completely dried. It is thermofixed at 190°C - 210°C for 30-60 seconds.

### PRINTING :

#### DIRECT PRINTING

Recipe	High Pressure Steaming	Superheated Steam Fixation (HT Steaming)	Thermofixation	
Dyestuff	X	X	X	Parts
Suitable Thickener	Y	Y	Y	Parts
Citric Acid (adjust pH)	4.5-5.5	4.5-5.5	4.5-5.5	
Fixation Accelerator	---	10-15	10-15	Parts
Water	Z	Z	Z	Parts
Total	1000	1000	1000	Parts

#### Fixation Condition

The fabric is printed with the above recipe, dried and then developed by one of the following methods :-

- High Pressure Steaming --- 28 - 32 psi for 30 to 40 minutes
- High Pressure Steaming --- 165°C - 175°C for 8-6 minutes
- Thermofixation --- 190°C - 210°C for 90-60 seconds

### DISCHARGE PRINTING

#### Preparation of Dischargeable ground shade

- Pad the dischargeable dyes by the recipe suggested and dry below 105°C.
- Alternatively ring dyeing can be carried out by using a recipe of HTHP dyeing, but dyeing is carried out at 105°C-110°C instead of 130°C using suitable dischargeable dyes.

## PREPARATION OF DISCHARGE PRINT PASTE

Recipe	White Discharge	Coloured Discharge	
Non-dischargeable Dyestuff	---	X	Parts
Zinc Sulphoxylate Formaldehyde	120-200	---	
Stannous Chloride	---	40-60	Parts
Sodium Acetate	---	10-20	Parts
OBA for Polyester	5-10	---	
Suitable Thickener	Y	Y	Parts
Water	Z	Z	Parts
Total	1000	1000	Parts

Print - Dry at 105°C - 110°C and carry out fixation by any method mentioned under Direct Style of Printing.

## DYEING OF POLYESTER / WOOL BLENDS

Set dye bath with

- X% Selected Disperse Dyes
- Y% Selected acid / 1:2 Metal Complex Dyestuff solution
- 1 gm/l Sodium Acetate
- 2.5% Suitable Carrier (Optional)
- 3.5% Wool Protecting Agent
- Adjust pH to 4.5 to 5.5 with Acetic Acid
- Dye at 112°C - 115°C for 20-30 minutes

## REDUCTION CLEARING TREATMENT

The dyed or printed material is treated at 60°C for 20-30 minutes in a bath containing

- 1.5-2.0 gm/l Caustic soda flakes
- 2-4.0 gm/l Sodium Hydrosulphite
- 1.0 gm/l Nonionic Washing off agent

Abbreviation	G = Good
	M = Medium
	P = Poor
	D = Dischargeable
	ND = Non-Dischargeable
	S = Suitable
	NS = Non Suitable

(Information given is with the best of our knowledge & without warranty)





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# PATTERNS

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## ACETATE DYES

These are 70° to 80° Temp. High exhaust dyes with higher grade of all round fastness properties including perspiration light chlorine and washing.

These dyes have also an advantage of exhaustim and fixation rates better alkali stability and levelly properties. As these dyes react with nylon & polyester in normally 70° to 80° temp & quick exhaust on nylon & Polystar.

### Acetate Dyeing Methods (For Lab Scale test)

Taking	0.200gm	Dyes
+	200 ml	Flot water
<hr/>		
	200ml	Solution

### Dyeing Receipe for 1% shade

10 ml Dyes Solution  
50 ml Hot Water

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Nylon After 5 to 10 minute  
Continue in 70° to 80° Temp

### Abbreviation

G	=	Good
M	=	Medium
P	=	Poor
D	=	Dischargeable

(WITHOUT GUARANTEE)










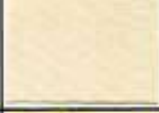




















**Hardik Dye Chem. Ind.**  
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**FASTNESS**

**DISPERSE DYES  
ON POLYESTER**

			LIGHT 1/1	SUBLIMATION	
1%	2%	Product		180°C	210°C
		DISP. YELLOW 7GL 200% (C.I. No. YELLOW 229 - 200%)	5-6	5	4
		DISP. YELLOW 7GL 200% (C.I. No. YELLOW 126 - 200%)	4-5	4	4
		DISP. YELLOW 5RX 100%	4-5	4	3
		DISP. YELLOW 4G 200% (C.I. No. YELLOW 236 - 200%) C4G-200%	5	4	3-4
		DISP. YELLOW 10GN 400% (C.I. No. YELLOW 184 - 400%)	6	4	3-4
		DISP. YELLOW SGL 200% - H/C (C.I. No. YELLOW 114 - 200%)	6-7	5	4
		DISP. YELLOW 6GN 400% (C.I. No. YELLOW 126 - 400%)	5-6	4-5	3-4
		DISP. YELLOW 4GLS 200% (C.I. No. YELLOW 211)	6	4	3
		DISP. G, Y, 2R 400% (C.I. No. YELLOW 56:1 - 200%)	4-5	4	3
		DISP. YELLOW 5G 200% (C.I. No. YELLOW 5)	6-7	4-5	4-5
		DISP. YELLOW BROWN REL- 100% (C.I. No. ORANGE 30 - 100%)	6-7	4-5	4
		DISP. YELLOW BROWN 2RFL 100% (C.I. No. ORANGE 30)	6-7	4-5	4
		DISP. YELLOW BROWN 2RC 200% (C.I. No. ORANGE 30 - 200%)	6-7	4-5	4

PROPERTIES			DYEING METHOD			PRINTING		DISCHARGEABILITY
WASHING	PERSPIRATION	MIGRATION	CARRIER	HT/HP AT 130°C	THERMOSOL	PRESSURE STEAM	HIGH TEMP STEAM	
5	4-5	3	G	M	G	S	S	D
5	4-5	3	G	M	G	S	S	D
4-5	5	3	G	G	G	S	S	D
4	5	3	G	G	G	S	S	D
4-5	5	3	P	G	G	S	S	ND
5	4-5	4	M	G	S	S	S	ND
5	5	3-4	M	G	M	S	S	D
4-5	5	3	G	G	G	S	S	D
4-5	5	3	G	G	G	S	S	D
4-5	4-5	3	M	G	G	S	S	D
5	5	3-4	M	G	G	S	S	D
5	5	3-4	M	G	G	S	S	D
5	5	3-4	M	G	G	S	S	D





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**FASTNESS**

**DISPERSE DYES  
ON POLYESTER**

1%	2%	Product	LIGHT 1/1	SUBLIMATION	
				180°C	210°C
		DISP. YELLOW - 8GF 200% (C.I. No. YELLOW 82 - 200%)	4-5	4	3
		DISP. G. YELLOW 2GDN - 200% (C.I. No. YELLOW 56 - 200% - P)	4-5	4	3
		DISP. YELLOW CL 200% (C.I. No. YELLOW 42 - 200%)	3-4	4	2-3
		DISP. YELLOW FFL 200% (C.I. No. YELLOW 124 - 200%)	6-7	4	3-4
		DISP. ORANGE RL 200% (C.I. No. ORANGE 25 - 200%)	6	3	2
		DISP. ORANGE- 3R 150% (C.I. No. ORANGE 44 - 150%)	5	4-5	5
		DISP. SCARLET RR 100% (C.I. No. RED 54 - 100%)	5-6	4-5	4
		DISP. SCARLET 3R-150% (C.I. No. RED 50 - 150%)	6	3-4	2
		DISP. SCARLET GS 200% (C.I. No. RED 153 - 200%)	5-6	4	3-4
		DISP. SCARLET 2RC-H/C. (C.I. No. RED - 54 - H/C)	5-6	4-5	4
		DISP. RED BS 200% (C.I. No. RED 152 - 200%)	5-6	5	4
		DISP. DARK RED 2B 100% (C.I. No. RED 167 - 100%)	6-7	4-5	3-4
		DISP. DARK RED-2B-200% (C.I. No. RED 167 - 200%)	6-7	4-5	3-4

PROPERTIES			DYEING METHOD			PRINTING		DISCHARGEABILITY
WASHING	PERSPIRATION	MIGRATION	CARRIER	HT/HP AT 130°C	THERMOSOL	PRESSURE STEAM	HIGH TEMP STEAM	
4-5	4-5	3	P	G	G	S	S	ND
4-5	5	3	G	G	G	S	S	D
4-5	5	3	G	G	G	S	S	D
4-5	4-5	3	G	G	G	S	S	ND
5	5	3-4	G	G	P	S	NS	D
5	5	3	M	G	S	S	S	D
4	5	3-4	M	G	M	S	S	D
5	5	4	G	G	P	NS	NS	D
5	5	3-4	M	G	S	S	S	D
4	5	3-4	M	G	M	S	S	D
5	5	3-4	M	G	S	S	S	D
4-5	4-5	3	G	G	G	S	S	D
4-5	4-5	3	G	G	G	S	S	D





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			FASTNESS		
DISPERSE DYES ON POLYESTER			LIGHT 1/1	SUBLIMATION	
				180°C	210°C
1%	2%	Product			
		DISP. LUM RED G- 200% (C.I. No. RED 227 - 200%)	4-5	4	3
		DISP. RED RGL 200% (C.I. No. RED 202 - 200%)	6	4-5	4
		DISP. PINK REL 200% (C.I. No. RED 86 - 200%)	4	3	2
		DISP. PINK 5BN 200% (C.I. No. RED 91 - 200%)	6	4	3-4
		DISP. PINK RBSF-200% (C.I. No. RED 362 - 200%)	5	3	3-4
		DISP. RED FB 150% (C.I. No. RED 60 - 150%)	6-7	3	2
		DISP. BRILLANT RED 6B-200% (C.I. No. RED 69 - 200%)	5-6	4-5	4
		DISP. RED F3BS 400% (C.I. No. RED 343 - 400%)	6	4-5	4
		DISP. RED F3BL 400% (C.I. No. RED 343:1 - 400%)	6	4-5	4
		DISP. RUBINE BL 100% (C.I. No. RED 73 - 100%)	6	4	3-4
		DISP. RUBINE 3B 200% (C.I. No. VIOLET 33 - 200%)	5-6	4-5	4
		DISP. RED VIOLET FBL 200% (C.I. No. VIOLET 26 - 200%)	6	4	3
		DISP. VIOLET 5R 200% (C.I. No. RED 19 - 200%)	4-5	3	2

PROPERTIES			DYEING METHOD			PRINTING		DISCHARGEABILITY
WASHING	PERSPIRATION	MIGRATION	CARRIER	HT/HP AT 130°C	THERMOSOL	PRESSURE STEAM	HIGH TEMP STEAM	
4-5	4-5	3	P	G	G	S	S	ND
5-6	5	3-4	M	G	G	S	S	D
3	4	3	P	M	G	S	S	ND
5	4	3-4	P	G	G	S	S	ND
4	4-5	3	M	G	G	S	S	ND
4-5	5	4	G	M	P	LS	NS	ND
4-5	5	4	M	G	G	S	S	D
4-5	4-5	3	M	G	G	S	S	D
4-5	4-5	3	M	G	G	S	S	D
5	5	3-4	G	G	P	S	S	D
5	5	3	M	G	G	S	S	D
4-5	5	3-4	M	M	G	S	S	ND
4-5	4-5	3-4	G	G	NS	NS	NS	ND

 <b>Hardik Dye Chem. Ind.</b> <b>VIKAS DYES &amp; CHEM. IND.</b>			FASTNESS		
DISPERSE DYES ON POLYESTER			LIGHT 1/1	SUBLIMATION	
				180°C	210°C
1%	2%	Product			
		DISP. VIOLET 3R 200% - H/C (C.I. No. VIOLET 63 - 200%)	5-6	5	4-5
		DISP. NAVY BLUE GNS 200% (C.I. No. BLUE 79 - 200%)	5-6	4-5	4
		DISP. BLUE 4R 200% (C.I. No. BLUE 94 - 200%)	6	5	4-5
		DISP. BLUE 2RX 100% (C.I. No. BLUE 56 - 100%)	6-7	3	2
		DISP. BLUE BGF 200% (C.I. No. BLUE 22 - 200%)	5-6	4	3
		DISP. BLUE GSL 400% (C.I. No. BLUE 165 - 400%)	5-6	4-5	4
		DISP. BLUE SE2RI 200% (C.I. No. BLUE 183 - 200%)	5-6	4	3-4
		DISP. BLUE DBR 200% (C.I. No. BLUE 366 - 200%)	5-6	4	3-4
		DISP. BLUE 6G 200% (C.I. No. BLUE 291 - 200%)	5	3-4	3
		DISP. BLUE 5G 200% (C.I. No. BLUE 291.1 - 200%)	5	3-4	3
		DISP. BLUE SR-200% (C.I. No. BLUE 354 - 200%)	5-6	3	3-4
		DISP. BLUE 2BLN 200% (C.I. No. 56.1 - 200%)	6-7	3	2
		DISP. T. BLUE BG 200% (C.I. No. BLUE 60 - 200%)	5-6	4	3



PROPERTIES			DYEING METHOD			PRINTING		DISCHARGEABILITY
WASHING	PERSPIRATION	MIGRATION	CARRIER	HT/HP AT 130°C	THERMOSOL	PRESSURE STEAM	HIGH TEMP STEAM	
5	5	3-4	M	G	G	S	S	D
4-5	4-5	2	P	G	G	S	S	D
5	5	2-3	P	G	G	S	S	D
4-5	5	3	G	M	NS	S	NS	ND
5	4	4	P	G	S	S	S	ND
4-5	5	4	P	M	S	S	S	D
4-5	5	3-4	M	P	G	S	S	D
4	5	3	P	M	G	S	S	D
4-5	4-5	3	G	G	NS	NS	NS	D
4-5	4-5	3	G	G	NS	NS	NS	D
4	4-5	3	G	G	S	S	S	D
4-5	5	3	G	M	NS	S	NS	ND
5	4	4	P	G	S	S	S	ND



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			FASTNESS		
DISPERSE DYES ON POLYESTER			LIGHT 1/1	SUBLIMATION	
				180°C	210°C
1%	2%	Product			
		DISP. BLUE B3G 200% (C.I. No. BLUE 60.1 - 200%)	5-6	4	3
		DISP. BLUE EXNF 300%	5-6	3-4	2-3
		DISP. BLUE FBBL 200% (C.I. No. BLUE 87 - 200%)	5-6	4	3
		DISP. BLUE BSRL 200%	6	3-4	3
		DISP. GREEN C6B 200%	6	4-5	4-5
		DISP. BRILLIANT GREEN 4GR 200%	6	4-5	4-5
		DISP. GREEN 5G 200%	6	4-5	4
		DISP. BROWN 3RD 150% (C.I. No. BROWN 1 - 150%)	5-6	4-5	4
		DISP. DARK BROWN 3BS 150%	5-6	4-5	4
		DISP. KHAKI 2RC 200%	6	4-5	4
		DISP. BLACK GR 200%	5	4-5	4
		DISP. BLACK EXNF 300%	5-6	3-4	2-3

PROPERTIES			DYEING METHOD			PRINTING		DISCHARGEABILITY
WASHING	PERSPIRATION	MIGRATION	CARRIER	HT/HP AT 130°C	THERMOSOL	PRESSURE STEAM	HIGH TEMP STEAM	
5	4	4	P	G	S	S	S	ND
5	5	3	M	G	P	NS	NS	D
5	4-5	4	M	G	P	NS	NS	D
5	5	3	M	G	P	S	S	D
4-5	4-5	3	P	G	G	S	S	D
4-5	4-5	3	P	G	G	S	S	D
4-5	4-5	3	P	G	G	S	S	D
5	5	3	M	G	G	S	S	D
4-5	4-5	3	P	G	G	S	S	D
4-5	4-5	3	P	G	G	S	S	D
4-5	4-5	3	M	G	G	S	S	ND
5	5	3	M	G	P	NS	NS	D





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**FASTNESS**

**DISPERSE "ME" SERIES  
ON POLYESTER**

1%	2%	Product	LIGHT 1/1	SUBLIMATION	
				180°C	210°C
		DISP. YELLOW M7G	6	5	4
		DISP. ORANGE M2RL	5-6	3	2
		DISP. RED MBR	6-7	3	2
		DISP. RED MGF	4-5	4	3
		DISP. RED MGB	6-7	3	2
		DISP. PINK MBF	5	3	2
		DISP. RUBINE M2B	5-6	4-5	4
		DISP. BLUE MGB	5	4	4
		DISP. BLUE M5R	5-6	5	3
		DISP. NAVY EMGR	6	5	4-5
		DISP. BROWN MRH	5-6	4-5	4
		DISP. BLACK MRD	6	4-5	4-5
					

PROPERTIES			DYEING METHOD			PRINTING		DISCHARGEABILITY
WASHING	PERSPIRATION	MIGRATION	CARRIER	HT/HP AT 130°C	THERMOSOL	PRESSURE STEAM	HIGH TEMP STEAM	
5	4-5	3	G	M	G	S	S	D
5	5	3-4	G	G	P	S	NS	D
4-5	5	4	G	M	P	NS	NS	ND
4-5	4-5	3	G	G	G	S	S	ND
4-5	5	4	G	M	P	NS	NS	ND
3	4-5	3-4	G	M	P	NS	NS	ND
5	5	3	G	G	G	S	S	D
5	4-5	4	G	G	NS	NS	NS	D
4	5	5	G	G	G	S	S	D
5	5	2-3	G	G	G	S	S	D
5	5	3	G	G	G	S	S	D
3-4	4-5	3	G	G	G	S	S	D



**Hardik Dye Chem. Ind.**  
**VIKAS DYES & CHEM. IND.**

**Fastness  
Properties**

**Discre  
Geability**

**ACETATE DISPERSE DYES  
ON NYLON & SILK FABRICS**

1%	2%	Product	Light	Washing	Perspiration	Neutral	Alkaline
		ACETATE DISP. YELLOW G (C.I. No. YELLOW 3)	4	4	4	G	1
		ACETATE DISP. ORANGE GR (C.I. No. ORANGE 3)	5	5	4	G	1
		ACETATE DISP. RED GG (C.I. No. RED 17)	4-5	4	4-5	G	2
		ACETATE DISP. RED X 3-B (C.I. No. RED 11)	4-5	5	5	D	2
		ACETATE DISP. PINK GF	4	4	5	D	2
		ACETATE DISP. SCARLET 2G (C.I. No. RED 1)	4-5	5-6	5	D	2
		ACETATE DISP. RUBINE GFL (C.I. No. RED 13)	4	4-5	5	D	2
		ACETATE DISP. MEGANTA MGF	4-5	5	5	D	2
		ACETATE DISP. VIOLET RL (C.I. No. VIOLET 1)	4	4-5	4-5	P	3
		ACETATE DISP. PURPLE H 3-G (C.I. No. VIOLET 73)	4	4	4	P	3
		ACETATE DISP. BLUE FFR (C.I. No. BLUE 3)	5-6	3-4	4	P	3
		ACETATE DISP. DARK BROWN 3-BS	4	3-4	4-5	G	1
		ACETATE DISP. BLACK BT	5	5	5	G	3





# HARDIK

DYE CHEM IND.

An ISO 9001:2015 Certified Company

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# VIKAS

DYES & CHEMICAL IND.

An ISO 9001:2015 Certified Company

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