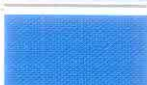
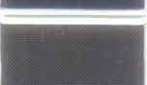




DYCRO[®]

DYCROSPERSE

DYEING	DISPERSE DYES	CI Number	Dyeing Properties					pH Range	Washing ISO 105-C10	Perspiration ISO 105-E04	Dry Heat [180*] ISO 105 - P01	Rubbing Dry [Wet] ISO 105-X12	Light Iso105-b02
			High Temp	Thermosol	Carrier	Printing	Discharge						
	Yellow SGF	79	☉	☉	Δ	☉	☉	3-9	5	5	4	4[4]	6-7
	Yellow SG	114	☉	☉	Δ	☉	x	4-5	4-5	4-5	4-5	4	4-5
	Yellow 4GLS	211	☉	O	O	Δ	x	3-7	5	5	3-4	5[5]	6-7
	Orange ERL	25	☉	Δ	O	x	x	2-9	5	5	3	4-5[5]	5-6
	Yellow Brown 2RC	30	☉	O	O	☉	x	3-8	5	5	4	5[5]	6
	Orange 3RFL	44	☉	O	O	☉	x	3-8	5	5	4	5[5]	6
	Scarlet BS	152	☉	☉	x	☉	☉	3-9	5	5	4	4-5[5]	5-6
	Scarlet GS	153	☉	☉	O	☉	☉	3-9	5	5	4-5	4-5[5]	5-6
	Rubine GFL	73	☉	O	☉	O	☉	3-7	5	5	4	4-5[5]	6
	Red S-BLF	92	☉	☉	x	O	x	4-8	5	5	4-5	4-5[5]	6
	Red F3BS	343	☉	O	O	Δ	x	2-9	5	5	4	5[5]	5
	Red FBL	60	☉	Δ	☉	x	x	2-9	5	5	3	4-5[5]	5-6
	Dark Red 2B	167	☉	O	Δ	O	x	3-7	5	5	4	4[4-5]	6-7
	Red Violet FBL	26	☉	☉	O	☉	x	3-8	5	5	4	4-5[5]	6-7
	Green SE6B	9	☉	☉	☉	☉	☉	3-7	5	5	4-5	4-5[5]	6

DYEING	DISPERSE DYES	CI Number	Dyeing Properties					pH Range	Washing ISO 105-C10	Perspiration ISO 105-E04	Dry Heat [180*] ISO 105 - P01	Rubbing Dry [Wet] ISO 105-X12	Light Iso105-b02
			High Temp	Thermosol	Carrier	Printing	Discharge						
	Violet 3R	63	⊙	⊙	○	⊙	×	3-8	5	5	4	4	5-6
	Violet	93	⊙	⊙	○	⊙	×	3-8	5	5	4	4	5-6
	Brown 3R	1	⊙	⊙	○	⊙	×	3-8	5	5	4	4	5-6
	Brown	4	⊙	⊙	○	⊙	×	3-8	5	5	4	4	5-6
	Blue SE2R	183	⊙	⊙	Δ	○	Δ	3-7	5	5	4	5[4-5]	5-6
	Blue GSL	165	⊙	⊙	Δ	⊙	×	3-7	5	5	4	4-5[5]	6
	Blue BG	60	⊙	○	Δ	⊙	×	3-9	5	5	4	5[5]	6
	Blue FBL	56	⊙	Δ	⊙	Δ	×	2-9	5	5	3	4-5[5]	5
	Blue DBR	366	⊙	×	Δ	×	×	2-9	5	5	4	4-5[5]	5
	Blue 3G	79	⊙	○	Δ	⊙	×	3-6	5	5	4	4-5[5]	5
	Navy Blue EXNSF		⊙	×	Δ	×	×	2-9	5	5	4	4-5[5]	5-6
	Black RLS		⊙	×	×	⊙	⊙	2-3	4-5	4-5	4-5	4	4-5
	Black EXSF		⊙	×	Δ	×	×	2-9	5	5	4	4-5[5]	5-6
	Black R		⊙	○	Δ	×	×	2-9	5	5	4	4-5[5]	5-6
	Black CCR		⊙	×	Δ	×	×	2-9	5	5	4	4-5[5]	5-6

DYEING	LUMINOUS DISPERSE DYES	CI Number	Dyeing Properties					pH Range	Washing ISO 105-C10	Perspiration ISO 105-E04	Dry Heat [180*] ISO 105 - P01	Rubbing Dry [Wet] ISO 105-X12	Light Iso105-b02
			High Temp	Thermosol	Carrier	Printing	Discharge						
	Yellow 10GN	184	☉	☉	O	O	×	4-6	5	5	5	4-5[5]	5-6
	Yellow 8GE	82	☉	☉	Δ	O	×	4-6	5	5	4-5	4-5[5]	4-5
	Red G	277	☉	☉	Δ	O	×	4-6	5	5	4-5	4-5[5]	5
	Red J		☉	☉	Δ	O	×	4-6	5	5	4-5	4-5[5]	5
	Pink RBSF	374	☉	☉	Δ	O	×	5	5	5	5	4-5[5]	5-6
	Pink 5BN	364	☉	☉	Δ	O	×	4-6	5	5	4-5	4-5[5]	5
	CN Pink		☉	☉	Δ	O	×	4-6	5	5	4-5	4-5[5]	5
	CN Violet		☉	☉	Δ	O	×	4-6	5	5	4-5	4-5[5]	5
	CN Blue B		☉	O	O	☉	×	4-6	5	5	4	5[5]	4-5
	T. Blue GRXF		☉	O	O	☉	×	4-6	5	5	4	5[5]	4-5
	Blue SR	354	☉	O	O	☉	×	4-6	5	5	4	5[5]	4-5

DYEING	ACETATE DISPERSE DYES	CI Number	Dyeing Properties		pH Range	Washing ISO 105-C10	Perspiration ISO 105-E04	Light Iso105-b02
			Discharge					
	Yellow G	3	x		4.5-5.5	4	4	4
	Orange GR	3	x		4.5-5.5	5	4	5
	Red GG	17	x		4.5-5.5	4	4	4-5
	Red X3-B	11	©		4.5-5.5	5	5	4-5
	Pink GF		©		4.5-5.5	4	5	4
	Scarlet 2G	1	©		4.5-5.5	5-6	5	4-5
	Rubine GFL	13	©		4.5-5.5	4-5	5	4
	Magenta MGF		©		4.5-5.5	5	5	4-5
	Violet RL	1	x		4.5-5.5	4-5	4-5	4
	Purple H3-G	73	x		4.5-5.5	4	4	4
	Blue FFR	3	x		4.5-5.5	3-4	4	5-6
	Dark Brown 3BS		x		4.5-5.5	3-4	4-5	4
	Black BT		x		4.5-5.5	5	5	5

Abbreviation

- © Suitable
- x Not Suitable
- Slightly Suitable
- △ Limited Suitability

Introduction

Jagson disperse dyes can be used for dyeing and printing of polyester fibers and polyester fiber blends. In exhaust dyeing the most important method of application is high temperature process.

Besides high temperature process Jagson disperse dye can also be used for carrier process and in continuous dyeing by the thermosol process. In printing fixation can be achieved depending on the sublimation properties either by HT steaming, hot air or by pressure steaming. We have covered almost all the properties of disperse dyes in this shadecard. A lot of technical efforts have been taken to ease the implementation process of Jagson disperse dyes for the customers.

Dyestuff

Disperse dyes can be mainly divided in 3 basic structure:

- 1)Azo
- 2)Anthraquinone
- 3)Special dyes

As per the dyeing properties the dyes can be classified as follows:

EType Features	SE Type Features	S Type Features
•Good leveling property. •Suitable for pale-medium shade. •Suitable for carrier dyeing as well as high temperature dyeing.	•Good exhaustion type at medium dyeing temperature. •Good leveling property. •Good sublimation fastness. •Suitable for pale-deep shade by high temperature, carrier, thermosol dyeing and printing.	•Good for exhaustion at high dyeing temperature. •Excellent sublimation and high stability for various finishing process. •Suitable for medium-deep shade by high temperature, thermosol dyeing and printing.

Dyeing Of Polyester Fibers

Polyester fibers have excellent properties in terms of :

- Strength
- Wear Resistance
- Resistance to chemicals
- Wash and wear properties
- Bulkiness
- Stretch properties

Following are the dyeing methods for polyester fiber:

- High Temperature
- Carrier
- Thermosol dyeing
- Thermosol printing

Practical dyeing methods, may vary according to kind of blended fibers, various fastness and handling to be required.

PRETREATMENT

The pretreatment and dyeing methods vary based on the form in which this substrate is being processed:

- Polyester loose material
- Tops, knit goods or woven fabric
- Spun polyester
- Filament, textured polyester filament
- 100% polyester fiber or blends

Pretreatment serves for

- Removing sizes, preparations and soil from the surface of the fiber
- In case of knit and woven goods serves for relaxation and bulkiness

In case of polyester/ cellulose blends desizing and mercerizing must be carried out prior to scouring.

SCOURING

Desizing and scouring must be carried out prior to dyeing

BLEACHING

Bleaching is an optional step. If a higher degree of white is desired, optical bleaching agents must be used.

HEAT SETTING

Heat setting is required to stabilize polyester fabric. Ensuring the piece goods retain its shape during all the stages. Generally it depends on the nature and structure of the fabric.

pH VALUE of Dyes

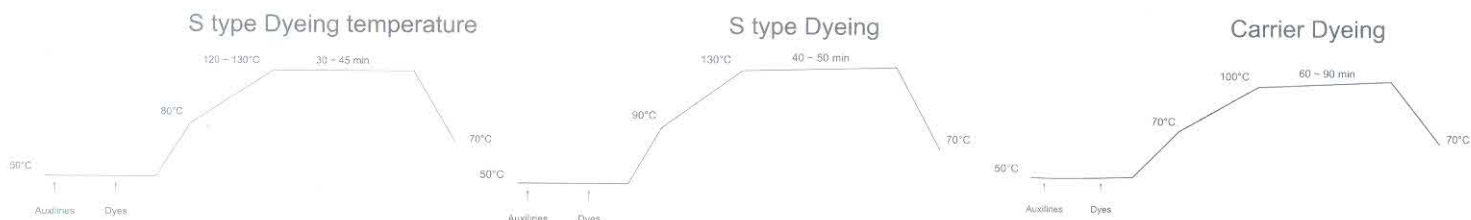
pH needs to be maintained after all auxiliaries and dyes are added. Buffer system is used to maintain constant pH throughout the dyeing process.

DYEING

Disperse colors are usually high temperature dyes. In majority of the cases it is used in powder/ granule form. The 2nd option available is paste form which is 50%-80% content concentration of the powder product. Generally luke warm water [40*-50*C] is added with stirring to complete the dispersion.

•HIGH TEMPERATURE DYEING

The dye batch must be controlled to pH 4.5-5 using weak acid such as acetic acid or with buffer using sodium acetate to promote the reproducibility of dyeing or to maintain the brilliance of shade.



Standard Recipe:

Jagson Dyes	X%
Dispersing agent	1g/liter
Acetic acid	to adjust pH to 4.5-5
Leveling agent	

And then reduction clearing is done.

•CARRIER DYEING

Only selected dyes can be used in carrier dyeing because the exhaustion and build up property are rather poor. Compared to temperature dyeing covering property is also poor.

Standard Recipe:

Carrier	Xg/liter
Jagson Dyes	Y%
Acetic acid	to adjust pH to 4.5-5 bring it to boil within 30-40 min
Dye	for 60-90 minutes according to depth of shade

And then Reduction clearing is done.

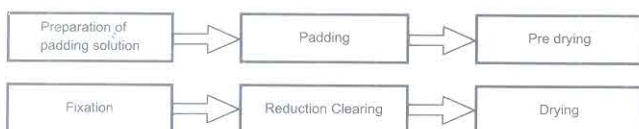
•THERMOSOL DYEING

THERMOSOL DYEING

Thermosol dyeing is employed as a continuous dyeing mainly for polyester/cotton blends, because of very high fixing temperature around 200°C. Dyes with high sublimation fastness are recommended for thermosol dyeing.

Liquid grade dyes are recommended for thermosol dyeing. It becomes easy to handle when pad liquor is being prepared.

For 100% polyester following process is followed:



THERMOSOL PRINTING

A)HIGH PRESSURE STEAMING METHOD:

RECIPE of color paste

Jagson Dyes	X
Wat	Y
Thickening paste	500-700
Tartaric acid/ Citric acid [pH 5-6]	2-3
Sodium Chlorate	5
Leveling agent	10-20
Total	1000

After printing and drying, steamed for 20-30 min at 130°C, then washed with cold and warm water, and reduction clearing.

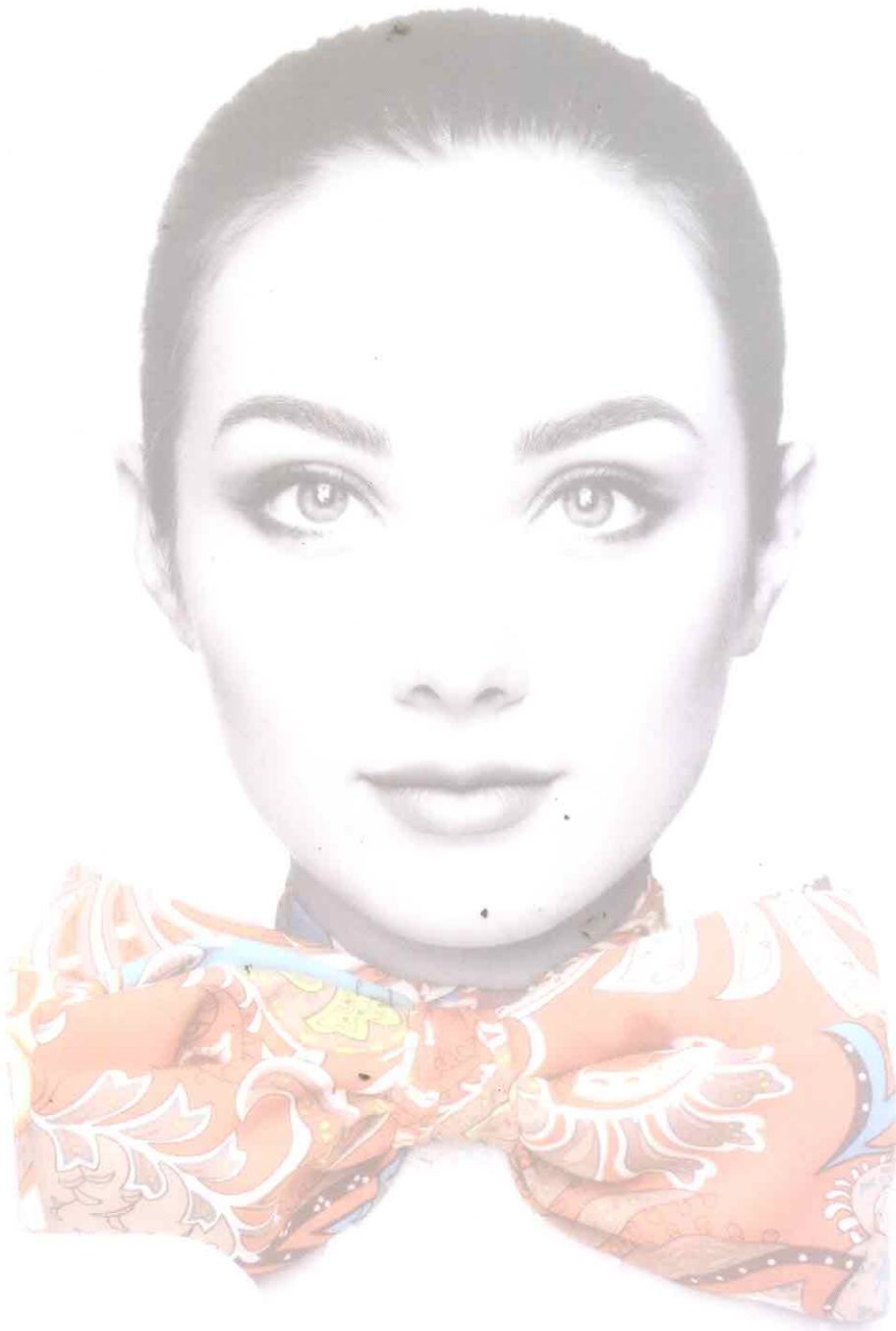
B)HIGH TEMPERATURE STEAMING [HT Steaming]/ DRY HEAT FIXATION

RECIPE for Colorpaste

Jagson Dyes	X
Water	Y
Thickening paste	500-700
Fixing accelerant	50-80
Tartaric acid/ Citric acid [pH 5-6]	2-3
Sodium Chlorate	5
Leveling agent	10-20
Total	1000

After printing and drying, steamed with super heat steam for 5-10min at 170*-180°C, then washed with cold and warm water, and reduction clearing.

Dyes	Xg/liter
Sodium Alginate [Migration Inhibitor]	10-15g/liter
Wetting Agent	1-2g/liter
Acetic acid to adjust pH to 5-6	
Pad liquor temperature	20*-30*
Pick up	60-65%
Pre drying	To 25-30% residual moisture
Drying Temperature	110*-120*
Thermosol Temperature	190*-210*
Thermosol Duration	20-90 seconds



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