

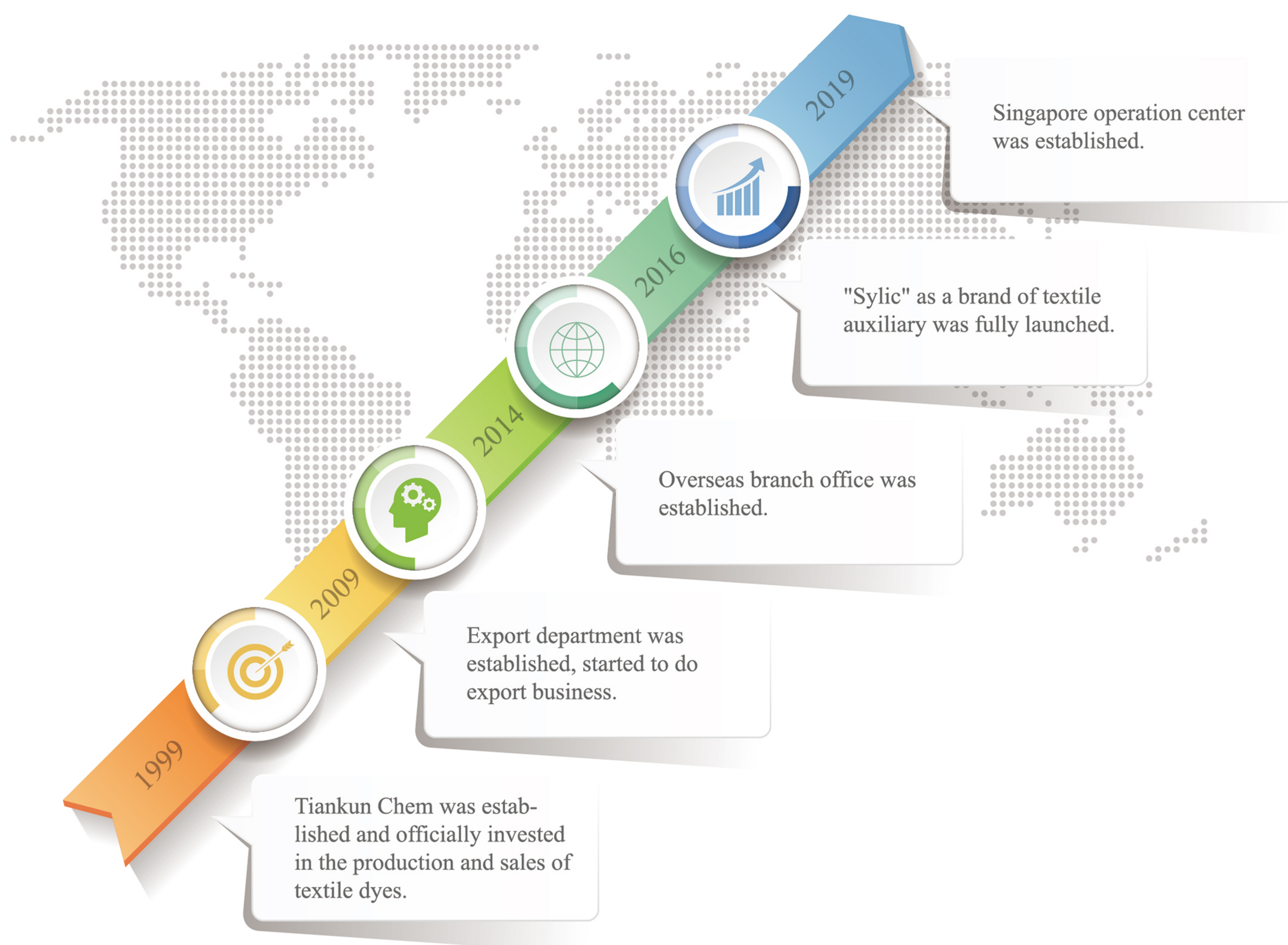


SKYCRON[®]
DISPERSE DYESTUFF
CATALOGUE

杭州天昆化工有限公司
HANGZHOU TIANKUN CHEM CO.,LTD

COMPANY INTRODUCTION

UP to now, Tiankun's products have been exported to nearly 70 countries and regions around the world.



The quality of our products has passed various of certification systems, and we select all the product materials on the highest standards.

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Dyeing Procedure of Disperse Dyes

I .High temperature high pressure dyeing

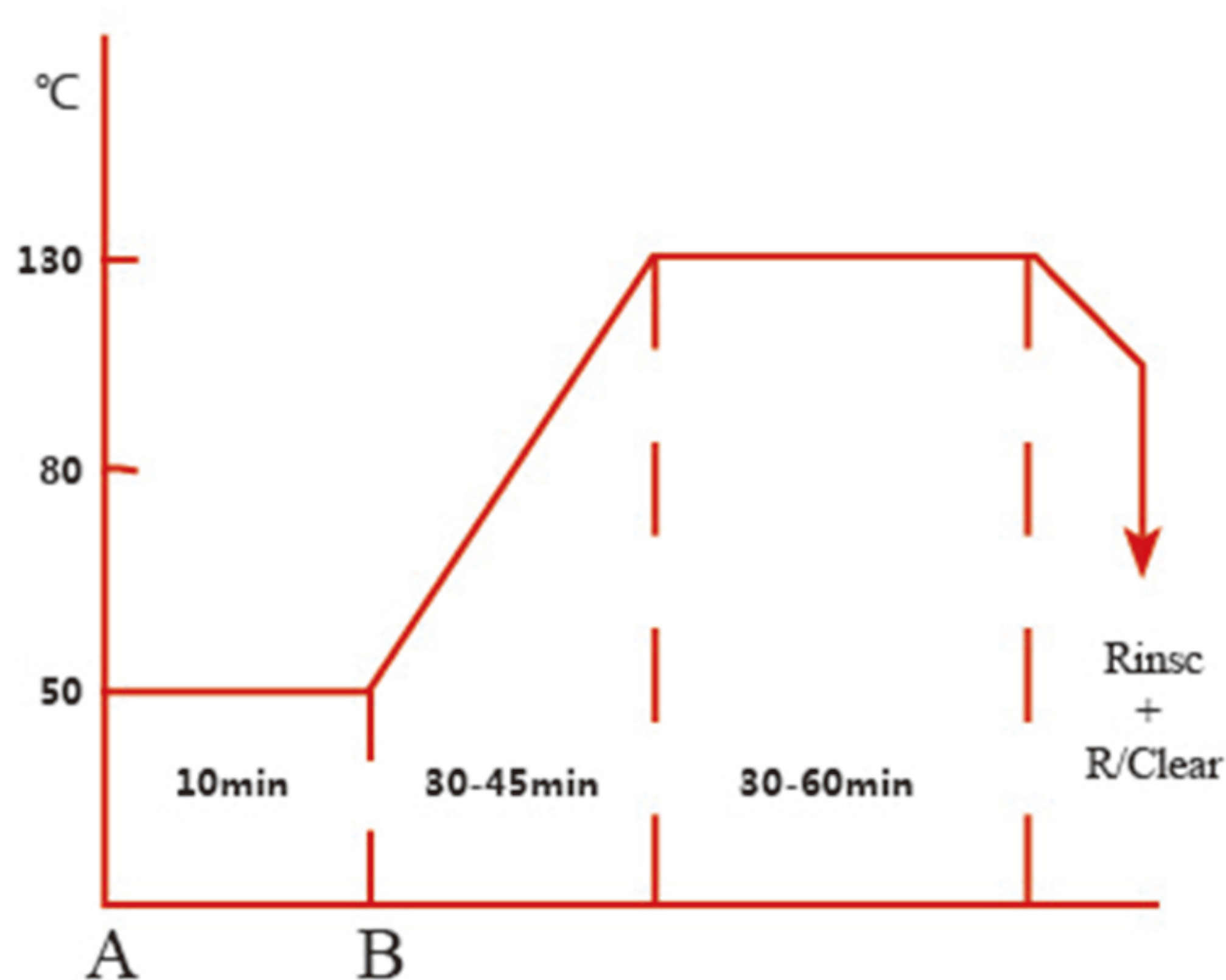
High temperature high pressure dyeing is Carried out using a closed type dyeing machines such as cheese, beam, jet, jig or liquor flow type according to the form of the material.

General dyeing conditions are as follows:

-About 1-2g/L dispersing agent is added to dyeing liquor and then PH value of the liquor is adjusted to 5-6 with acetic acid or buffer solution (acetic acid and sodium acetate). The dyeing liquor is then gradually raised from 40-60 °C to 125-135 °C, and cot this temperature the dyeing is continued for 39-90min.

-And also dyeing temperature and dyeing time differ with the form of the material, the dye concentration and dyeing apparatus. Therefore, it is important to select the suitable dyeing condition.

Dyeing process for nylon, triacetate, polyester and acrylic fibers.



At A set bath at 50 °

1 gl Add Neutrasol NST (Buffer)

At B add Duracet Dyes (pre-dispersed)

In heavy depths a mild reduction clear is advisable to ensure good wet fastness levels

-After dyeing by various methods, reduction cleaning is carried out generally, unfixed dye on the fiber surface is removed by this treatment.

-Color of the dye itself as well as good rubbing and wet fastness are obtained.

-The condition of reduction cleaning is generally as follows:

2g/L Hydrosulphite

3ml/L caustic soda 38 ° Be

Temperature:70°C Time:10-15min

II .Carrier dyeing

Carrier dyeing is carried out under atmosphere pressure by an addition of carrier to the dyeing liquor.

Methylnaphthalene or chlorobenzene type carrier is usedgenerally,which is added in concentration of 2-7 g/L to the dyeing liquor.

Other conditions of the dyeing liquor are the same as those for high temperature dyeing. The temperature is raised gradually from 40-60 °C and continued for 90-120 min at 100°C .

In carrier dyeing, in some case the troubles such as tarring of dye or carrier spot are taken from the no stability of emulsifier in the carrier under high temperature or some other conditions. Therefore, it is necessary to select the carrier so as to prevent the troubles.

Reduction cleaning as stated in high temperature high pressure dyeing.

III .Thermosol dyeing

Thermosol dyeing is a continuous dyeing method which is applied mainly for the polyester/ cotton blended materials. General dyeing condition is as follows.

Dye and 0.5-2g/L of migration inhibitor (for example, sodium alginate) and also wetting agent if necessary are added to the padding liquor.

Squeezing is carried out 1 dip 1 nip at room temperature, pick up 65-70%. Drying at 70-90.

After padding and intermediate drying, thermosol fixation is carried out by dry heating for 60-120 sec. at 180-210 °C depending on the form of the material and type of disperse dyes.

-Etype:180-190°C X60-120 sec

-SE type:180-200°C X60-1120 sec

-S type:200-210°C X60-120 sec

Reduction cleaning as stated in high temperature high pressure dyeing.

IV .Printing

Printing methods are roughly divided into the following classification:

By printing style	Direct printing
	Discharge printing
	Resist printing
	Hand printing
By printing apparatus	Screen printing
	Roller printing

1.Direct Printing

[1]High pressure steaming method (HP steaming)

Recipe of color paste:

Disperse dyes	xg
Water (50-60℃)	yg
Thickning paste	500-600g
Tartaric acid	3g
Sodium chlorate	5g

Total 1000g

After printing and drying , steamed for 30 min, at 130 ℃, then washed with cold and warm water, and reduction cleaning.

[2]High temperature Steaming method (HT steaming)

Disperse dyes	xg
Water (50-60℃)	yg
Thickning paste	500-600g
Dyeing accelerant	20-40g
Tartaric acid	3g
Sodium chlorate	5g

Total 1000g

After printing and drying, steamed with super heat steam for 6-8 min,at180-185 ℃, then washed with cold and warm water, and reduction cleaning.

2.Discharge printing

The material dyed with dischargeable disperse dye by carrier or high temperature dyeing methods is discharged by following methods:

By use of stannous chloride as a dischargeing agent.

[1]White discharge

Stannous chloride	80-120g
Tartaric acid	15-25g
Urea	25g
Water	115-165g
Thickning paste	750-665g
Fluorescent brightening agent DT	15g

Total 1000g

[2]Colored discharge

Undischargeable disperse dye	xg
Stannous chloride	50-80g
Urea	50g
Auxiliaries for discharge	50g
Water	yg

Total 100g

After printing and drying, steamed for 20-30min, at 120-130 ℃ then washed with cold and warm water, and reduction cleaning.

3.Resist printing

Recipe of resist paste:

Undischargeable disperse dye	xg
Thickning paste	500-600g
Wetting agent	0-20g
Warm water	yg
Stannous chloride	40-60g
Tartaric acid	3-5g

Total 1000g

Recipe of over paste:

Dischargeable disperse dye	xg
Thickning paste	500-600g
Warm water	yg
Tartaric acid	3-5g
Sodium chlorate	2g

Total 1000g

After printing of resist paste, moreover printed a over paste, instantaneously or after drying, and dried, then steamed for 20-30min, at 120-130 ℃, and washed with cold and warm water, finally reduction cleaning.

V .Fastnesses

Light fastness (xen on) GB/T 8427-1998 (EQV.ISO 105 B02: 1994)

Washing fastness GB/T 3921.3-1997 (EQV/ISO 105 C03:1989)

Rubbing fastness GB/T 3920-1997 (EQV. ISO 105X12: 1993)

Sublimation fastness GB/T 5718-1997 (EQV.ISO 105 p01:1993)

VI .NOTE

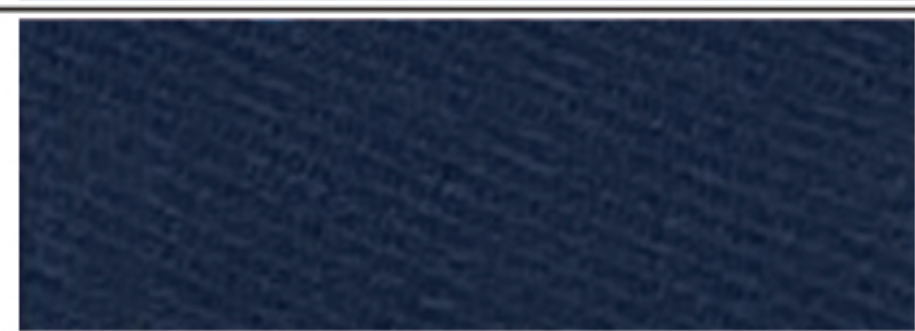
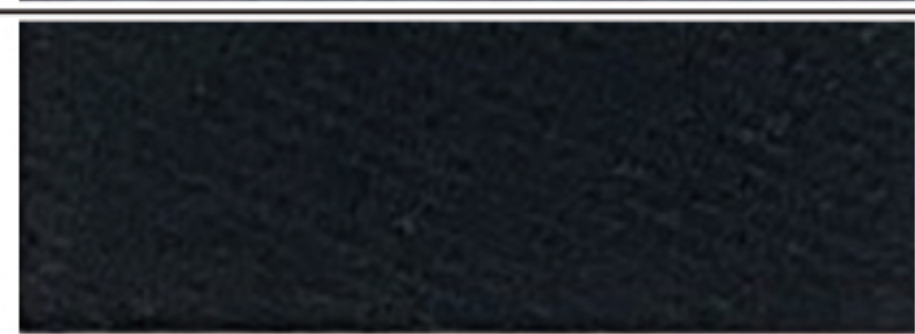
○ Very suitable

◎ Suitable

● Unsuitable

Skycron® TXF

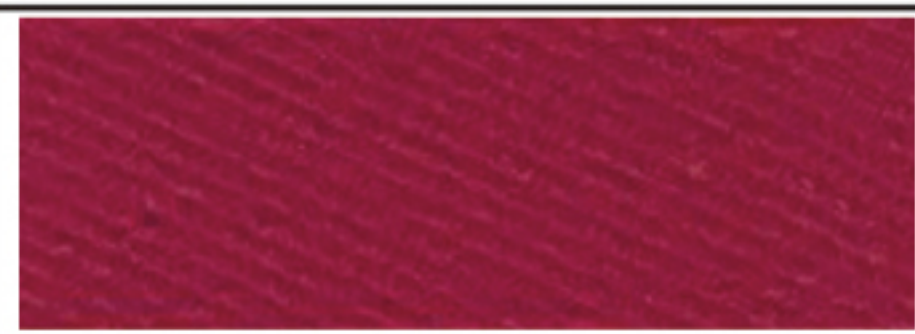
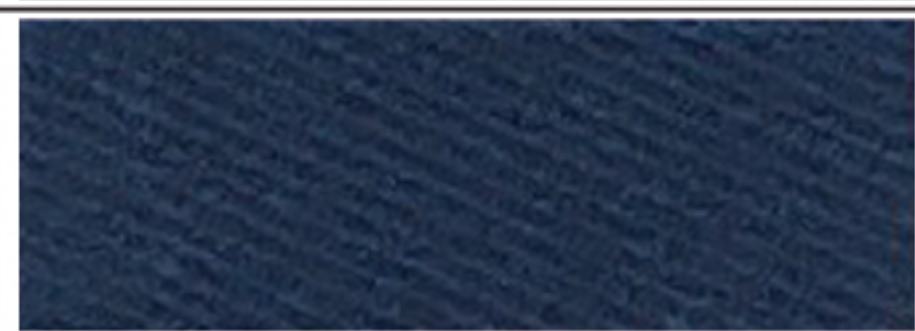
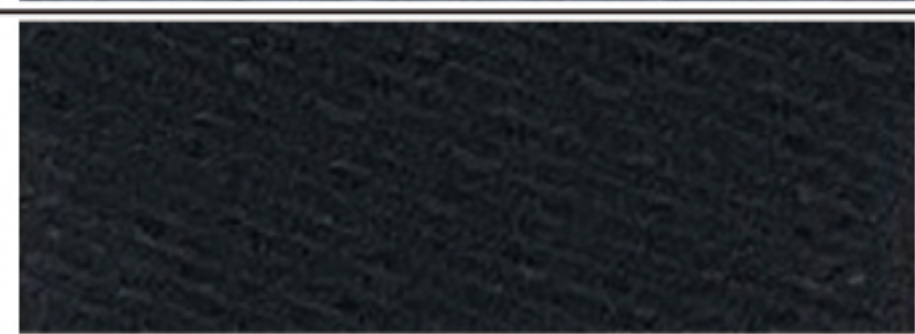
High Washing Series

No.	Color Sample	Brand Skycron®	O.W.F(%)	Light Fastness	Washing				Water Soaking	Sublimation	Chlorinated Water	PH Value
					Ca	Co	Pa	Pes				
1		Yellow TXF	2.0	6-7	5	5	4-5	5	4-5	4-5	4-5	3-6
2		Golden Yellow TXF	2.0	6	4-5	5	4-5	4-5	4	3-4	4-5	3-5
3		Brown TXF	2.0	6-7	4	4	3-4	4	4	3-4	3-4	3-6
4		Violet TXF	2.0	6	4	4-5	3-4	4	4	5	4	4-5
5		Rubine TXF	2.0	6-7	3-4	4	3-4	4	4-5	5	3-4	3-6
6		Pink TXF	2.0	6	3-4	4	3	3-4	3	4	3	3-5
7		Scarlet TXF	2.0	6	3-4	4	3	4	4	5	3-4	3-6
8		Blue TXF	2.0	5-6	3-4	4	4	4	4	4-5	3-4	3-5
9		Turq.Blue TXF	2.0	6-7	4-5	4-5	4-5	4-5	4-5	4	4-5	3-5
10		Navy Blue TXF	2.0	5-6	4	4-5	4	4	4	4-5	3-4	3-5
11		Navy Blue G TXF	2.0	5-6	4	4-5	4	4	4	4-5	3-4	3-5
12		Black TXF	4.0	5-6	4	4-5	4	4	4	4-5	3-4	3-5

TXF High Washing Series

- Completely chromatogram,excellent color reproducibility between varieties.
- Excellent fastness to sublimation and thermal migration.
- After high temperature setting and hot water soaking, less residual color will remain in the water.
- Used for 100% polyester, polyester color stain fastness 4 degree.
- Less cotton color stain in the dyeing and setting process of polyester/cotton blended fabrics.

Skycron® KXF High Washing Series

No.	Color Sample	Brand Skycron®	O.W.F.(%)	Light Fastness	Washing				Water Soaking	Sublimation	Chlorinated Water	PH Value
					Ca	Co	Pa	Pes				
1		Yellow KXF	2.0	6-7	5	5	4-5	5	4-5	4-5	4-5	3-6
2		Golden Yellow KXF	2.0	6	4-5	5	4-5	4-5	4	3-4	3-4	3-5
3		Brown KXF	2.0	6-7	5	5	4-5	4-5	4	4-5	4	3-5
4		Red 3BS KXF	2.0	6	4-5	4-5	4	4-5	3	4	3	4-5
5		Rubine 4BS KXF	2.0	6	4-5	4-5	4	4-5	3-4	4	3	4-5
6		Scarlet KXF	2.0	5-6	4-5	4-5	4-5	4-5	4-5	5	4	3-6
7		Scarlet Y KXF	2.0	5-6	4-5	4-5	4-5	4-5	4-5	5	4	3-6
8		Blue KXF	2.0	6-7	4-5	5	4-5	4-5	4-5	4-5	4	4-5
9		Blue 2GS KXF	2.0	5-6	4-5	4-5	4	4-5	4	4-5	3	3-5
10		Navy GS KXF	2.0	5-6	4-5	4-5	4	4-5	4	4-5	3	3-5
11		Navy RS KXF	2.0	5-6	4-5	4-5	4-4.5	4-5	4-5	4-5	3	3-5
12		Black G KXF	4.0	5-6	4-5	4-5	4-4.5	4-5	4	4-5	3	3-5
13		Black R KXF	4.0	5-6	4-5	4-5	4-4.5	4-5	4-5	4-5	3	3-5

KXF High Washing Series

- Excellent wash fastness can be achieved after heat setting treatment of the textile.
- Small staining for other fibers in the family washing process of polyestr/spandex blended fabric.
- Relieves pressure of wastewater treatment because of the higher dye fixation.



Skycron® SWF Super Washfast Series

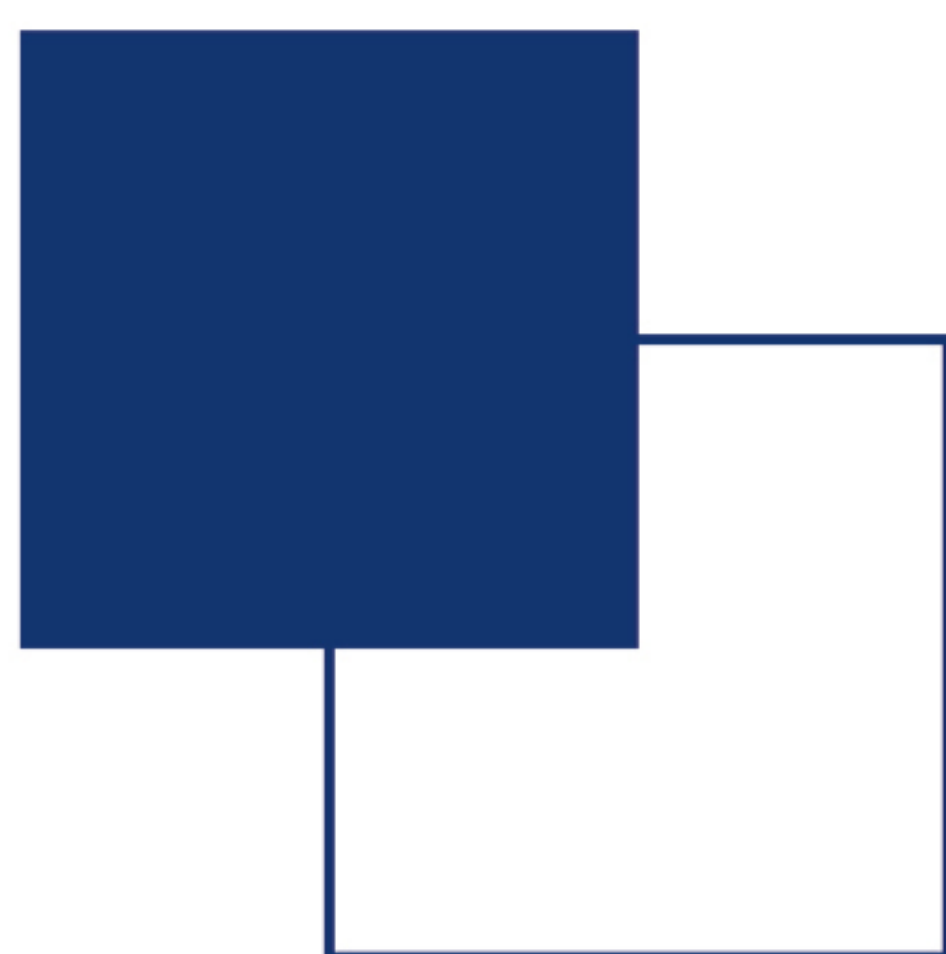


No.	Color Sample	Brand Skycron®	O.W.F(%)	Light Fastness	Washing				Water Soaking	Sublimation	Chlorinated Water	PH Value
					Ca	Co	Pa	Pes				
1		Yellow SWF-6GS	2.0	7	5	5	4-5	5	5	4-5	4-5	3-6
2		Golden Yellow SWF-3R	2.0	7	4-5	5	4-5	5	5	3-4	4	3-5
3		Red SWF-RS	2.0	6-7	4	5	4	4-5	5	4-5	4	3-7
4		Rubine SWF-4BS	2.0	7	5	5	5	5	4	4	4	4-5
5		Blue SWF-BLS	2.0	7	4-5	5	4	4-5	5	4-5	4	4-7
6		Navy Blue SWF-RS	2.0	6-7	4	5	4	4	5	4	4-5	3-6
7		Black SWF-NS	4.0	6-7	4	5	4	4-5	4-5	4	4	3-6
8		Red SWF-DS	2.0	4-5	5	5	5	5	5	4-5	4-5	3-5
9		Red SWF-FS	2.0	5	5	5	5	5	5	4	4-5	3-7
10		Red SWF-BFS	2.0	6-7	5	5	5	5	5	4-5	4-5	3-7
11		Red SWF-CBS	2.0	6	5	5	5	5	5	3	4-5	3-7
12		Red SWF-3BS	2.0	4-5	5	5	5	5	4	4	4	3-5
13		Violet SWF-2RS	2.0	6	5	5	5	5	5	4-5	4-5	4-6
14		Blue SWF-TGS	2.0	5-6	5	5	5	5	5	4-5	4-5	3-6
15		Navy Blue SWF-GSN	2.0	5-6	5	5	5	5	4-5	4-5	4-5	3-5
16		Black SWF-KSN	5.0	6	5	5	4-5	5	4-5	4-5	4-5	3-5

SWF Super Washfast Series

- Super washing fastness excellent performance can be achieved after 180°C heat setting treatment.
- No color staining on different fibers in the home washing process of polyestr/spandex blended fabric.
- Resistance to butanone, chlorine water and other organic solvent soaking.
- Suitable for shoe fabric, swimsuit and other high-grade elastic fabric.





The information and our technical advice submitted in this shade card are based on our current knowledge and experience. In view of many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments, neither do they imply any legal binding assurance of certain properties or of suitability for a specific purpose.



HANGZHOU TIANKUN CHEM CO.,LTD.

ADD: 5TH FLOOR, SOUTHEAST TECHNOLOGY R&D CENTER,
XIAOSHAN DISTRICT, HANGZHOU, CHINA

TEL: 0086-571-86750669

FAX: 0086-571-86750661

EMAIL: info@tiankunchemical.com

WEB: <https://www.tiankunchemical.com>