台灣永光化學工業股份有限公司

Everlight Chemical Industrial Corporation

Everdirect

English Version

EVERLIGHT

Technical Service Division

EVERLIGHT

CONTENTS

EVERLIGHT

PHILOSOPHY AND PRINCIPLES

The core values of Everlight are "Business by Integrity; Management by Caring." Our missionstatement, business philosophy and principles are all derivatives of these values shared by allemployees.

Philosophy

We have adopted the merit of love from the Bible as the essence of our management. From this, we have generated our philosophy of management as "Pursuit of Progress and Innovation, Stimulation of Individual Potential and Contribution to Quality of Life."

Pursuit of Progress and Innovation

We define progress and innovation as a challenge and need to achieve continuous improvement in the increasingly competitive markets. Therefore, we focus on building solid technical foundations for improving quality, manufacturing reliable high-tech products, and nurturing technical and commercial specialists. In addition, our management oversees and coordinates all operations including R&D, production, and marketing, and has led the company into a global business.

Stimulation of Individual Potentials

We believe the most valuable asset of every company is its human resource. Everlight values all its employees and cares for their growth by providing open and fair working environment and on-the-job training. Teamwork spirit and mutual support are facilitated to develop the full potential of each employee and the company.

Contribution of Quality of Life

We recognize that the value of a company lies in its contribution to the quality of life. Everlight has endeavoured in providing top quality products, such as color chemicals, specialty chemicals, pharmaceuticals, electronic chemicals and nano-materials, to the world community. Everlight has also been actively involved in charitable activities.

Principles

In order to pursue sustainable development while shareholders interest and human dignity are to be taken care of and respected, Everlight has set forth the following principles for our operations.

1. Business Ethics
2. Product Selection
3. Industrial Safety
4. Environmental Protection
5. Customers' Satisfaction
6. Respecting Employees
7. Technological Self-Sufficiency
8. Continuous Improvement
9. Solid Financial Structure
10. Stockholders' Interests
11. Fair Competition
12. Contribution to Society

Quality Policy

EVERLIGHT positions itself as a high-tech chemical manufacturer. Realizing that world-class quality and customers' satisfaction provide the foundation for sustainable development, we define Everlight Quality Policy as :

Customers Caring With Value Creation

And adopt the following strategies :

1. Listening to the Voice Of Customers and understanding their real needs.
2. Developing new products to increase customers' values.
3. Providing professional services to solve customers' problems.
4. Fact-based analysis and continuous process improvement.
5. Managing hazardous substances and producing "green products".

2006/10/13 Revised

Safety and Health Policy

EVERLIGHT positions itself as a high-tech chemical manufacturer. Realizing that industrial safety and health are one of the major concerns in business management and that this responsibility should be taken by all the employees, we define Everlight Safety and Health Policy as :

Revere the Life and Pursue Zero Incident

To actualize this commitment, we adopt the following strategies :

1. Establish OHSAS 18001 Safety and Health Management System.
2. Enhance employees' consciousness and skills of safety and training.
3. Promote employee-based initiatives, and integrate safety considerations into standard operation.
4. Continuous improvement of safety and health performance under the observation of supervisor.
5. Comply the safety and heath regulation and commit to the safety and health of all employees.

2004/3/26 Reviewed

Risk Management Policy

EVERLIGHT positions itself as a high-tech chemical manufacturer. In order to reduce business management risks and maintain competitiveness, we define Everlight Risk Management Policy as :

Establishing Risk Management Culture
Ensuring Business Sustainability

And adopt the following strategies :

1. Establishing risk management system.
2. Strengthening all employees' risk awareness by education and training.
3. Strengthening Corporate Governance.
4. Complying with international product safety regulations.
5. Commitment to our Environmental, Safety and Health Policies.

2004/3/26 Issuied

Environmental Policy

EVERLIGHT positions itself as a high-tech chemical manufacturer. realizing the limit of earth resources and the importance of "sustainable development". To take the responsibility of a global citizen and participate "the Green Campaign", we define Everlight Environmental policy as :

Conserve Earth Resources
Conform to Environmental Regulations

To actualize this commitment, we adopt the following strategies:

1. Establishing ISO 14001 Environmental Management System.
2. Enhancing employees' consciousness and skills of environmental protection through education and training.
3. Continuous improvement of the production processes and the utilization of all resources.
4. Reducing industrial wastes and practicing pollution prevention.
5. Developing environmental techniques and increasing the effectiveness of waste treatment facilities.

2004/3/26 Reviewed

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1. INTRODUCTION :

Everlight Chemical Industrial Corporation markets a wide range of high quality dircet dyes called "Everdirect dyes". These dyes have excellent fastness specifications.

Everdirect dyes are applied to all type of cellulosic fibers, such as cotton, viscose rayon and linen etc. Meanwhile, these dyes can achieve highly reliable wet fastness on viscose rayon.

Everdirect dyes are divided into four groups as follows :
Everdirect ———— has excellent light fastness property.
Everdirect supra —— has excellent light and wet fastness specifications.
Everdirect Light —— has brilliant shade compared with reactive dyes.
Everdirect Cupro —— need an aftertreatment with copper-containing fixing agent to achieve excellent wet fastness specifications.

2. LIST OF EVERDIRECT DYES :

1. Everdirect Supra Yellow PG
2. Everdirect Supra Yellow RL
3. Everdirect Supra Orange 2GL
4. Everdirect Light Scarlet F2G
5. Everdirect Supra Red BWS
6. Everdirect Light Rose FR
7. Everdirect Supra Rubine BL
8. Everdirect Supra Brown GTL
9. Everdirect Supra Blue FBL
10. Everdirect Supra Blue GRL
11. Everdirect Supra Blue FFRL
12. Everdirect Supra Blue 4BL H/C
13. Everdirect Supra Blue BRL
14. Everdirect Supra Blue BRN
15. Everdirect Supra Grey CGL
16. Everdirect Cupro Black HRN
17. Everditrct Fast Black B-160
18. Everdirect Fast Black VSF 600
19. Everdirect Black ANBN H/C
20. Everdirect Fast Black B-300

3. GENERAL DYEING METHODS OF EVERDIRECT DYES :

Everdirect dyes are used to dye all type of cellulosic fibers and its blends by exhaustion, padding and printing methods. These dyes are ideal selection for exhaustion dyeing of cellulosic fibers.

3-1. Pretreatment of substrate :

The quality of pretreated substrate prior to dyeings will affcet the result of dyeing. Oil and sizing agent remained on the surface of the substrate should be removed as they may cause uneven dyeing. Chemical residues of the pretreatment should be throughly removed on account that it can cause substrate damage in the dyeing process. Therefore, the pretreatment process such as desizing, scouring, bleaching, mercerizing etc., should be carried out as careful as possible.

3-2. Exhaustion dyeing method :

Prepare a dyeing bath containing neutral salt (Glauber's salt or common salt), and put the substrate into the bath at about 30-50°C. Heat up the bath slowly to around boiling and maintain dyeing temperature for 30-60 min. After dyeing rinse the dyeing substrate with over-flow water to avoid excessive bleeding of the dyes. Finally, wet fastness can be improved by a fixing treatment in fresh bath with fixing agent.

(1) Dissolving procedure of dyes :

1. Prepare a dissoliving tank as large as possible.
2. Paste the weighed dyes with a small amount of cold water.
3. Add hot water and stir for a period of time.
4. Ensure the complete dissolution, add the solution into the dyebath through a filter cloth or screen.

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(2) Recommended amount of neutral salt :

The necessary amount of neutral salt will depend on the substrate, dyes, depth of shade and liquor ratio. The recommended amount of neutral salt is shown as belows :

Dyes / Dyeing depth % o.w.f.	A*	B*	C*
extremely pale shade (less than 0.05%以下)	0 - 1 g/l	0 - 2 g/l	2 - 5 g/l
pale shade (0.05-1.0%)	1 - 3 g/l	2 - 5 f/l	5 - 10 g/l
medium shade (1.0 - 4.0%)	3 - 10 g/l	5 - 10 g/l	10 - 20 g/l
heavy shade (more then 4.0%)	10 g/l	20 g/l	20 g/l

The table list is based on liquor ratio 1:30

* A : Dyes which are not so sensitive to salt
B : Dyes which are moderately sensitive to salt
C : Dyes which are highly sensitive to salt

* For Everdirect Fast Black B-160, Fast Black B-300 and Fast Black VSF 600, it is necessary to add 2-4 g/l soda ash into the dyebath in order to give a PH value of 10.0-10.5.

(3) Fixing treatment :

Dyed substrate is immersed into a fixing bath under the following conditions :

Fixing agent : 0/5-2.0 g/l
Liquor ratio : 1:20
Temp. & Time : 60°C x 20-30 min.

(4) Correction of uneven dyeing :

When uneven dyeings are found immediately after dyeing process, they can be corrected by the migration or partial stripping of the dyes on the substrate in the following conditions :

Soda ash : 3-5 g/l
Non-ionic surfactant : 2-3 g/l
Sodium pyrophosphate : 1 g/l
Temp. & Time : 100°C x 30 min.

A higher liquor ratio gives a better effect on the correction.

(5) Stripping of dyes :

Sodium hydrosulfite : 3-5 g/l
Caustic soda. (flake) : 2 g/l
Temp. & Time : 80-90°C x 30 min

It is very difficult to strip the dyes evenly and throughly, even severe stripping gives an undesired influence on the handling touch of the dyeing substrate. In such cases, it is better to re-dye the substrate a darker shade after a moderate stripping.

3-3. Classification of Everdirect dyes :

The precise dyeing conditions have to take account of the levelling ability of each particular direct dye. Each Everdirect dyes had been placed in one of the three classes in accordance with the Society of Dyers and Colorants.

S. D. C. Classifications : (Society of Dyers and Colorants)
Class A : Self-levelling
Class B : Salt-controllable
Class C : Temperature-controllable

Class A : These direct dyes have good migration property and levelness. They can be applied without special precaution. However, the wet fastness specifications are rather poor.

Class B : These direct dyes are not self-levelling and must go onto the fibers in a levelling manner. Any unlevelness will be difficult to correct. A gradual addition of salt will give a uniform uptake and build-up of the dyes.

Class C : These direct dyes have strong affinity whose exhaustion can not be controlled adequately by the addition of salt alone. Once unlevelness – which is very difficult to correct – it is necessary to raise the temperature slowly while making small addition of salt.

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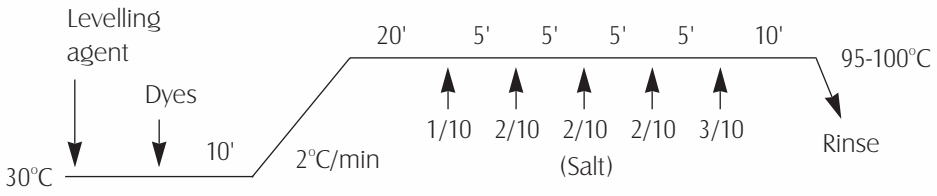
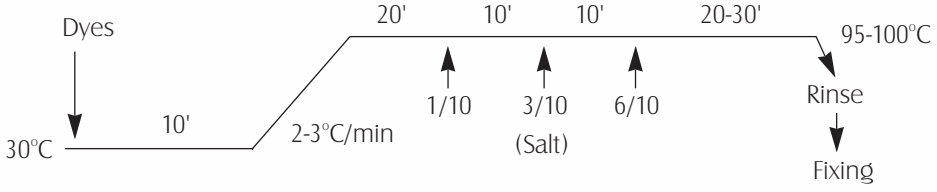
3-4. Exhaust dyeing methods of Everdirect dyes :

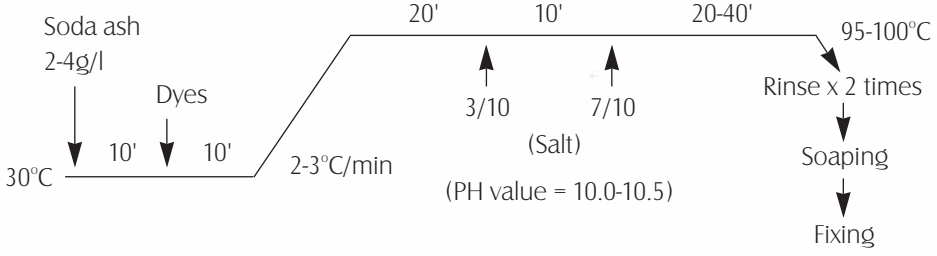
(1) Pale shades :



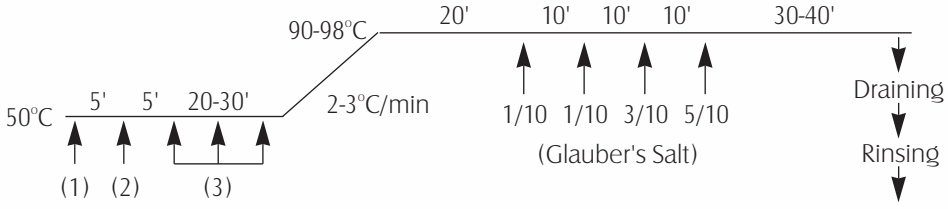
(2) Medium to heavy shades :



(3) Special dyeing method of Everdirect Fast Black B-160, Fast Black B-300 & Fast Black VSF 600 :



(4) Special dyeing method of Everdirect Supra Blue FBL & GRL Dyeing curve :



(1) Penetrating agent : 1%
(2) Levelling agent : 1%
(3) Dyes : 2-3 portionwise addition.

(5) Dyes & Salt at start :

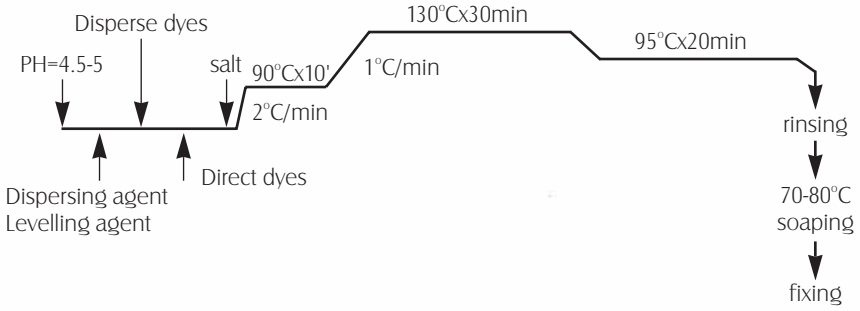
REMARKS :

1. Turquoise Blue FBL & GRL are also suitable for T/C one bath dyeing.
2. Liquor ratio should be controlled between 1:10 to 1:20.
3. Glauber's salt is prefered, instead of common salt.
4. After dyeing, the rinsing process is very important. Insufficient rinsing will cause unlevelness. Besides, after fixing, the fabric must be dried immediately.

(6) Polyester/Cotton blends dyeing :

Disperse/Direct dyes at one bath one step method :

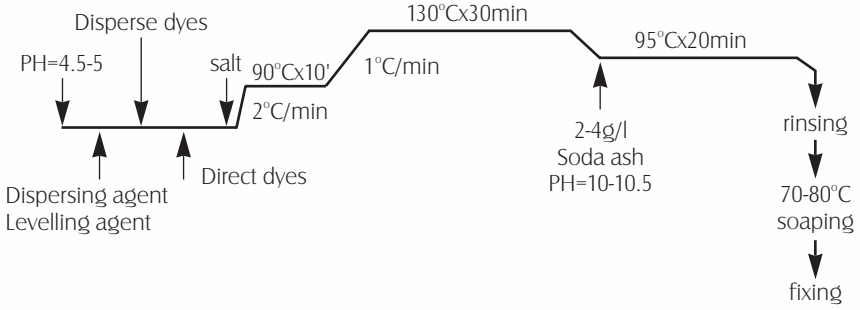
(this method is widely recommended for Everdirect dyes, except Everdirect Fast Black VSF 600)



(7) Polyester/Cotton blends dyeing :

Disperse/Direct dyes at one bath two steps method :

(Especially for Everdirect Fast Black VSF 600)



3-5. Continuous dyeing method :

The continuous dyeing method is divided into two stages. The first stage is: Substrate to be padded with a dyes solution. The second stage is: dyes on the substrate to be developed. The continuous dyeing method is mainly based on pad-steam process.

(1) Padding stage : (The first stage)

To minimize "Tailing" effect, the procedure should be carried out in the padding stage as follows:

(a) Use a small padding trough to increase the exchange of fresh dyes solution. (pick-up: 70~100%)

(b) Shorten the immersion time of the substrate in padding solution.

(c) Pad the substrate as lower pick-up as possible.

(d) Pad the substrate at low temperature. (In the case of heavy shade, the trough is often heated up to 50-60°C, in order to maintain good dissolution of dye.)

The solubility of the dyes is the another concern in the padding stage. There will be no trouble in the pale shade. However, selection of proper dyes with high solubility are necessary in heavy shade. An addition of about 100 g/l of urea will improve the solubility of the dyes, in order to increase the final uptake of the dyes in pad-steam process.

In the padding stage, an addition of 1-2 g/l of sodium alginate can get good effect of migration property.

(2) Steaming stage : (The second stage of pad-steam process)

In the pad-steam process, the substrate exits from the padder and enters into the steamer. The steamer must be filled with saturated vapor in order to fix the substrate. Steaming stage is carried out at 102-105°C for 3-5 minutes.

In case that steamer is not large enough for the requested steaming time, the substrate should be run though another boiling salt bath 30 g/l after steaming.

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Dye Selection

1. Tertiary Shade :

(A) Pale shades

Everdirect Supra Yellow RL	Everdirect Supra Blue 4BL H/C
Everdirect Supra Red BWS	Everdirect Supra Grey CGL

(B) Medium-deep shade

Everdirect Supra Yellow RL	Everdirect Supra Brown GTL
Everdirect Supra Red BWS	Everdirect Supra Rubine RL
Everdirect Supra Blue BRN	Everdirect Supra Blue 4BL H/C
	Everdirect Supra Blue BRL

2. Scarlet Red

Everdirect Light Scarlet F2G	Everdirect Supra Yellow RL
Everdirect Light Rose FR	

3. Jade green & Aqua green

Everdirect Supra Yellow PG	Everdirect Supra Blue FFRL
Everdirect Supra Blue FBL	Everdirect Supra Blue GRL

4. Pink/Violet

Everdirect Supra Yellow RL	Everdirect Supra Blue FFRL
Everdirect Light Rose FR	

5. Royal Blue

Everdirect Supra Blue BRL	Everdirect Supra Blue FFRL
Everdirect Supra Blue BRN	Everdirect Light Rose FR

6. Black

Everdirect Fast Black VSF 600	Everdirect Fast Black B-160
Everdirect Fast Black B-300	Everdirect Cupro Black HRN

supplementary :

Everdirect Supra Yellow RL	Everdirect Supra Rubine BL
Everdirect Supra Red BWS	

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(Ⅰ) Dyeing properties of Everdirect dyes :

1. S.D.C. classification
2. Exhaustion classification by temperature
3. Migration property
4. Solubility
5. Multifiber cross-dyeing
6. Effect of metallic ions
7. Color Constancy
8. Dischargeability
9. Shade change by fixing agent
10. Shade change by heat

(Ⅱ) Fastness properties of Everdirect dyes :

1. Washing
2. Water
3. Chlorinated water
4. Perspiration
5. Light
6. Wet- Light
7. Perspiration-Light
8. Rubbing

(Ⅲ) Dyeing curves :

1. Build-up
2. PH dependency
3. Temperature dependency
4. Salt dependency

(Ⅰ) Dyeing properties :

1. S.D.C. Classifications : (Society of Dyers and Colorants)

Class A : Self-levelling
Class B : Salt-controllable
Class C : Temperature-controllable

Class A : These direct dyes have good migration property and levelness. They can be applied without special precaution. However, the wet fastness are poor.

Class B : These direct dyes are not self-levelling and must go onto the fibers in a levelling manner. Any unlevelness will be difficult to correct. A gradual addition of salt will give a uniform uptake and build-up of the dyes.

Class C : These direct dyes have strong affinity whose exhaustion can not be controlled adequately by the addition of salt alone. Once unlevelness – which is very difficult to correct– it is necessary to raise the temperature slowly while making small addition of salt.

2. Exhaustion classification by temperature

Dyeing conditions :

Material	: Unmercerized cotton
Dipth of shade	: 1% o.w.f.
Liquor ratio	: 1:20
Common salt	: 10 g/l
Temp. & Time	: 50°C, 60 min.
	70°C, 60 min.
	90°C, 60 min.

Evaluation :

H type : High temperature type.

Dyes show higher exhaustion at higher dyeing temperature, and they generally have the following characteristics:

* Slower rate of dyeing, poor covering property, but good wet fastness.
* Lower tailing tendency in continuous dyeing.
* In synthetic fiber with cellulosic blends dyeing, it's easy to control the dyeing shade because of re-exhaustion occures rarely during the cooling period.

M type : Medium temperature type.

These dyes show no particular relation with the dyeing temperature, and they generally have the following characteristics :

* No need to control the dyeing temperature strictly, and these dyes have very good dyeing reproducibility.
* Ending effect rarely happens in jigger dyeing.

L type : Low temperature type.

These dyes show maximun exhaustion at 65-75°C and the strength reduction at 90°C. The dyeing temperature should be controlled precisely. They have the following characteristics :

* Good levelling property because of the excellent migration ability. These dyes have high strike at initial dyeing and have poor wet fastness than the other types of dyes.
* Beware of tailing in continuous dyeing.
* Shade change may occur by re-exhaustion during the cooling process.

3. Migration property

Dyeing conditions :

Material	: Unmercerized cotton
Depth of shade	: 1% o.w.f.
Liquor ratio	: 1:20
Common salt	: 10 g/l
Temp & Time	: 95-100°C x 30 min.

Migration test :

Material	: dyed and undyed cotton fabric
Liquor ratio	: 1:20
Common salt	: 10g/l
Temp. & Time	: 95-100°C x 30 min.

Evaluation :

After the migration test, assess the contrast between the dyed and undyed cotton fabric by using the grey scale.

4. Solubility

A predetermined amount of dyes were dissolved in hot water (90-95°C), and then cooling down to 80°C, the dyes solution was filtered by filter paper. The solubility was measured on the presence or absence of residue on the filter paper.

5. Multifibers cross-dyeing

Dyeing conditions :

Material	: Multifibers
Depth of shade	: 2% o.w.f.
Common salt	: 10g/l
Liquor ratio	: 1:20
Temp. & Time	: 95-100°C x 30 min

Evaluation :

The degree of cross-dyeing on multifiber was assessed by the grey scale.

6. Effect of metallic ions

Dyeing conditions :

Material	: Unmercerized cotton
Depth of shade	: 1% o.w.f.
Common salt	: 10g/l
Liquor ratio	: 1:20
Metallic ions	: Fe^{++} (20 ppm as Fe^{++})
	Cu^{++} (20 pm as Cu^{++})
Temp. & Time	: 95-100°C x 30 min.

Evaluition :

The shade difference and yield between the dyed samples and without adding metallic ion were assessed by the grey scale.

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7. Metamerism

The shades of dyed meteials under tungsten filament lamp and daylight fluorescent lamp were compared with that under standard light source, and the degree of shade difference was measured and classified as follows :

A : Slight shade difference in shade perceived corresponding to a rating range, 5 to 3-4, of the grey scale for assessing the color change.

B : Considerable shade difference perceived coresponding to a rating range, 3-4 to 2-3, of the same grey scale.

C : Much shade difference perceived corresponding to a rating range, 2-3 to 1, of the same grey scale.

Symbols in parentheses mean the hue tendency of shade difference.

Y : Yellower R : Redder B : Bluer G : Greener

P : Purpler C : Birighter D : Duller

8. Dischargeability

Dischargeability varies with the depth of ground dyeing and recipe of white discharge. The discharge test was made on cotton fabrics dyed at 2% o.w.f.

(1) Recipe of discharge paste :

Composition/Method	Neutral	Alkaline
Decrolin	100	---
Rongalic C	---	200
Soda ash	---	10
Glycerine	30	30
Thickener	770	760
Total	1000 parts	1000 parts

(2) Procedure :

After printing, the fabrics were dried at 60°C, steamed at 102°C for 5 to 8 minutes, followed by rinsing and soaping.

9. Shade change by Fixing agent

Fixing conditions:

Material	: dyed cotton fabric (2% o.w.f.)
Liquor ratio	: 1:20
Fixing agent	: Polyamine fixing agent 2g/l
Temp. & Time	: 60°C x 20 min

Evaluation :

The shade difference between the fixed sample and without adding fixing agent were assessed by the grey scale.

10. Shade change by Heat

Dyeing conditions:

Material	: Unmercerized cotton
Depth of shade	: 1% o.w.f. (Black Dyes 2% o.w.f.)
Common salt	: 10 g/l
Liquor ratio	: 1:20
Temp. & Time	: 95-100°C x 30 min

Indication :

Immediately after drying, the shade change of the dyeings is assessed, and again after 2 hours re-condition at room temperature, and compared to the one at the room temperatrue by the grey scade for assessing shade change.

Evaluation :

After squeezing the dyed fabric by controlled pick-up 100%, then the dyed fabric is kept in a hot-air dryer at 130°C/266°F for 1 min.

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(II) Fastness properties :

1. The fastness properties were assessed according to the standards of the ISO, AATCC, Fastness test results are listed.
2. The fastness properties were tested with dyeing depth of 1.0% o.w.f. for normal dyes, 2% o.w.f. for black dyes.
3. The light fastrness property is stated for several standard depth.
4. The hue tendency of a shade change is indicated by the following abbreviations: G=greener Y=yellower R=redder B=bluer D= duller

(1) Washing :

(ISO 105 C02)	5g/l ECE Detergent, L:R=1:50
	50 ±2°C x 45min
AATCC-61-IIA	1.5g/l detergent
	150 ml soaping solution
	50 steel balls in each container
	49°C x 45 min.

(2) Water :

(ISO 105-E01)	37± 2°C x 4hrs

(3) Chlorinated Water :

(ISO 105-E03)	active chlorine 20ppm
	NaOCl
	PH=7.5
	L:R = 1:100
	27°C x 60 min

(4) Perspiration :

(ISO 105-E04)	Acid : 5g/l NaCl, 2.2g/l NaH_2OP_4,
	0.5g/l L-histidine, PH-5.5
	37±2°C x 4hrs
	Alkaline : 5g/l NaCl, 5g/l Na_2HPO_4,
	0.5g/l L-histidine, PH=8.0

(5) Light :

(ISO 105-B02) Xenon arc lamp, assessing by S.D.C blue wool scale
R.H=30±5% ,black Panel temp.=63±1°C

(6) Wet-Light :

L.R= 1:50 Immersing time 30min
Wet fabric exposed in Weather-O-meter
Xenon arc lamp, assessing by S.D.C. blue wool scale
R.H.=30±5%
Black panel temp.= 63±1°C

(7) Persiration-Light :

Acid : 5g/l NaCl, 2.2g/l NaH_2PO_4,
0.5g/l L-histidine, PH=5.5
Alkaline : 5g/l NaCl, 5g/l Na_2HPO_4,
0.5g/l L-histidine, PH=8
L.R=1:50, Immersing time 30 min
Wet fabric exposed in Weather-o-meter
Xenon arc lamp, assessing by S.D.C. blue wool scale
R.H=30±5%, black panel temp.= 63±1°C

(8) Rubbing :

(ISO 105-X12) Crockmeter
10 times x 9N downward force
wet & dry rubbing

above tests were carried out under fixing treatment, except light fastness.

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(III) Dyeing Curves :

(1) Build-up

Dyeing conditions :

Material	: Unmercerized cotton
Depth of shade	: 0.01、0.05、0.1、0.5、1、1.5、2、3、4、5、6% o.w.f.
Liquor ratio	: 1:10
Common salt	: 3-10 g/l
Temperature & Time	: 98°C x40min.

(2) PH dependency

Dyeing conditions :

Material	: Unmercerized cotton
Depth of shade	: 1% o.w.f.
Liquor ratio	: 1:10
pH of dyebath	: 4、5、7、8、9、10、11
Temperature & Time	: 98°C x 40min.

(3) Temperature dependency

Material	: Unmercerizecd cotton
Depth of shade	: 2.0% o.w.f.
Common salt	: 10 g/l
Liquor ratio	: 1:20
Dyeing temperature	: 60、70、80、90、100*°C
Dyeing time	: 40min.

(4) Salt dependency

Material	: Unmercerized cotton
Depth of shade	: 2.0% o.w.f.
Common salt	: 3, 5, 10*, 15, 20, 30, g/l
Liquor ratio	: 1:10
Temperature & Time	: 98°C x 40min.

Everdirect Dyes

1 % 3 %	Dyestuff	Characteristic
	Supra Yellow PG	1. Brilliant yellow of high color value. 2. Excellent levelling and migration property. 3. Excellent lightfastness and chlorinated water fastness.
	Supra Yellow RL	1. Reddish yellow of high color value. 2. Compatible with R-BWS, B-4BL as economical trichromate. 3. Wide application. 4. Highest lightfastness among yellow color.
	Supra Orange 2GL	1. Essential orange dyes of high color valve. 2. High chlorinated water fastness and lightfastness, some what phototropism. 3. White dischargeable dyes.
	Light Scarlet F2G	1. Very brilliant scarlet, compatible with Rose FR as brilliant red. 2. Excellent high temperature stability and suitable for T/C one bath dyeing.
	Supra Red BWS	1. Economical red component as trichromate with Y-RL, B-4BL. 2. Excellent high temperature stability. 3. Moderate wet lightfastness.
	Light Rose FR	1. Brilliant bluish red, excellent levenlenss. 2. Excellent high temperature stability and peroxide bleaching property, suitable for T/C one bath dyeing and in one bath. 3. Excellent wet fastness.
	Supra Rubine BL	1. Recommended as a red component for high wet fastness. 2. Compatible with O-2GL, B-HRN as deep shade trichromate. 3. High lightfastness.
	Supra Brown GTL	1. Neutrol and moderate brown dyes. 2. Useful as a shading color for darking. 3. Excellent lightfastness. 4. Suitable for bleaching and dyeing in one bath.
	Supra Blue FBL	1. Brilliant turquoise dyes. 2. Compatible with Y-PG for jade green shade dyeing. 3. Excellent migration property.
	Supra Blue GRL	1. Brilliant greenish turquoise dyes. 2. Compatible with Y-PG for jade green shade dyeing. 3. Excellent migration property.
	Supra Blue FFRL	1. Excellent levelness and high lightfastness as a royal blue dyes. 2. Compatible with Rose FR for violet shade dyeing. 3. Payattention to low solubility.

Everdirect Dyes

1 % 3 %	Dyestuff	Characteristic
	Supra Blue 4BL H/C	1. Excellent wet fastness as the blue component of basic trichromate. 2. Compatible with Y-RL, R-BWS, Ru.-BL. 3. Suitable for T/C one bath dyeing as excellent high temperature dyeing stability.
	Supra Blue BRL	1. Excellent build-up and reddish Navy dyes. 2. Excellent wet fastness. 3. Excellent high temperature dyeing property suitable for T/C one bath dyeing.
	Supra Blue BRN	1. Excellent build-up and reddish Navy dyes. 2. Excellent wet fastness. 3. Excellent high temperature dyeing property suitable for T/C one bath dyeing.
	Supra Grey CGL	1. Excellent levelness and migration property. 2. Suitable for single dyeing or shading. 3. Excellent lightfastness. 4. Excellent high temperature dyeing.
	Cupro Black HRN	1. Economical and excellent build-up. 2. Suitable for T/C dyeing in one stage method.
	Fast Black B-160	1. Economical and excellent build-up. 2. Dyeable at alkaline bath. 3. Suitable for bleaching and dyeing in one bath.
	Fast Black VSF 600	1. Economical and excellent build-up. 2. Dyeable at alkaline bath. 3. Suitable for bleaching and dyeing in one bath. 4. Noticeable solubility at jigger dyeing. 5. Suitable for T/C dyeing in one stage two step dyeing.
	Black ANBN H/C	1. Excellent build-up. 2. Excellent reproducibity under acidic bath.
	Fast Black B-300	1. Economical and excellent-up. 2. Dyeable at alkaline bath. 3. Suitable for bleaching and dyeing in one bath.

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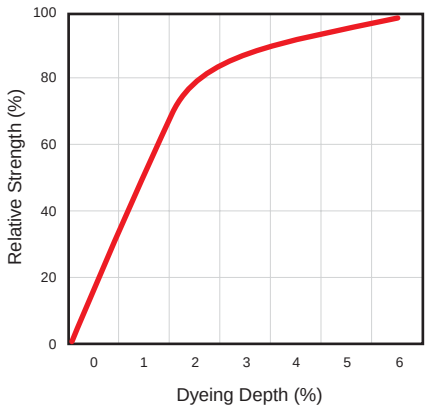
Everdirect Supra Yellow PG

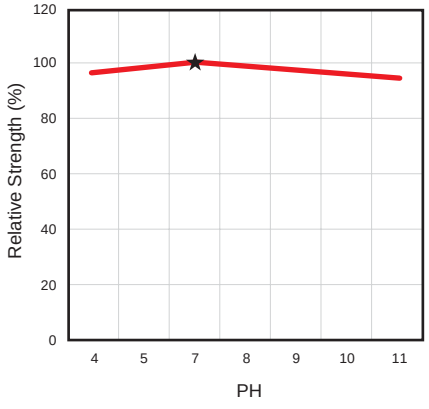
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		M
Migration Property 移染性		3-4
Solubility g/l 溶解度	80°C Water	50
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	1
	Polyester	4-5
	Acrylic	4-5
	Wool	2
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	R
	TL 84 Lamp	R
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	1-2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4-5
Shade change by heat 熱變色性	0	4-5G
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Yellow PG

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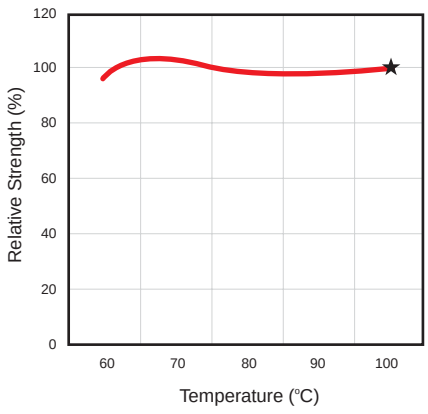
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4	5	1-2	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	1-2	4-5	5	5	5
Water 耐水	ISO 105-E01		1.0%	5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3-4						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	4-5						

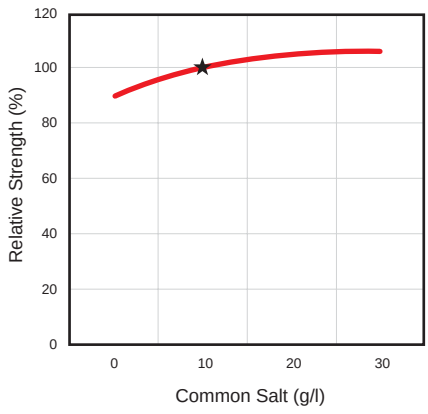
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	5-6
	0.1 %	5-6		Alkali		5R
	0.5 %	6	Wet-Light 耐濕日光		0.2 %	5-6
	1.0 %	>6			2.0 %	6
	2.0 %	>6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



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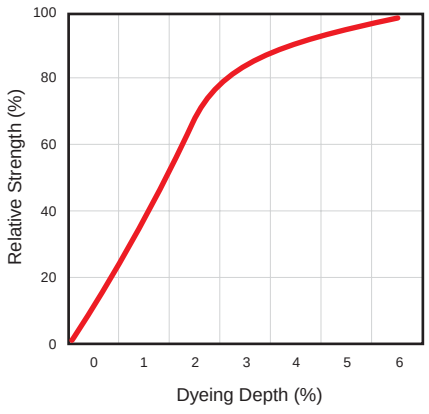
Everdirect Supra Yellow RL

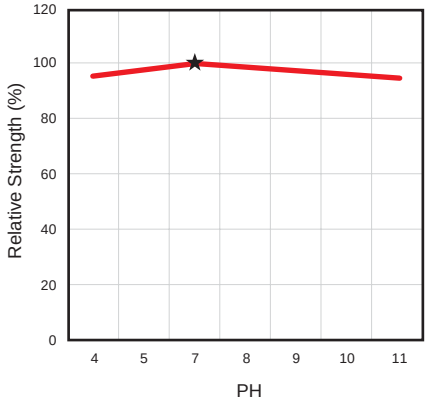
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		M
Migration Property 移染性		3
Solubility g/l 溶解度	80°C Water	80
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	2
	Polyester	4-5
	Acrylic	4-5
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	R
	TL 84 Lamp	R
Discharge -ability 拔染性	Neutral 中性	3-4
	Alkaline 鹼性	1-2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4-5
Shade change by heat 熱變色性	0	4
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Yellow RL

EVERLIGHT

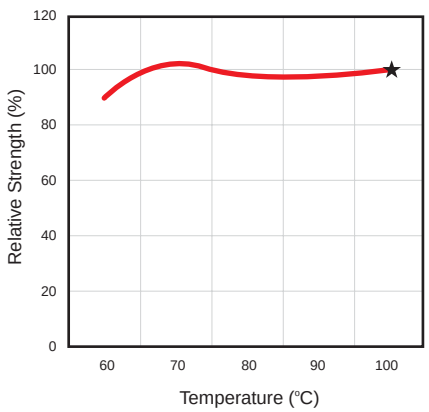
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	2-3	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	2	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3-4						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	4-5						

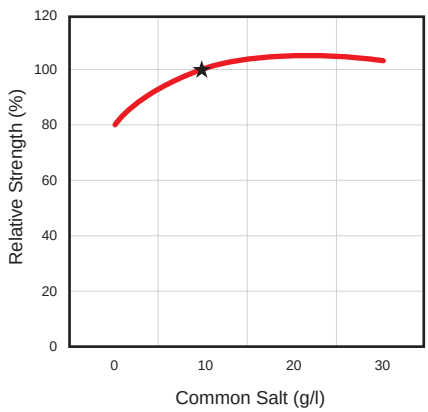
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	>6
	0.1 %	6		Alkali		>6
	0.5 %	6	Wet-Light 耐濕日光		0.2 %	6
	1.0 %	>6			2.0 %	6
	2.0 %	>6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

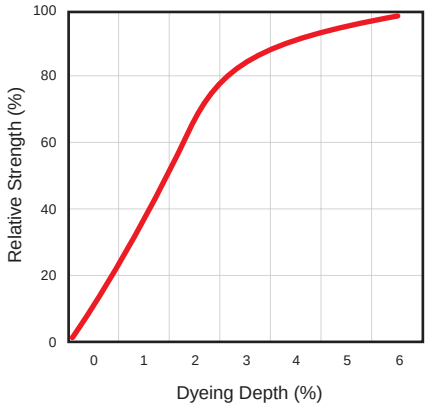


Everdirect Supra Orange 2GL

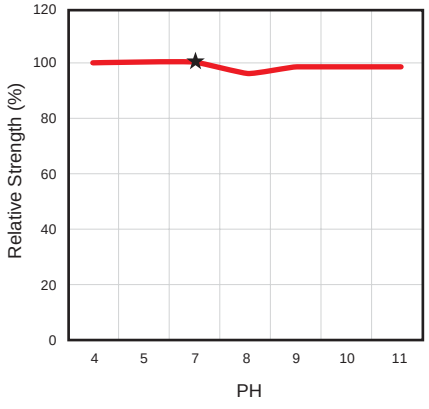
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		L
Migration Property 移染性		2
Solubility g/l 溶解度	80°C Water	100
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	1
	Polyester	4-5
	Acrylic	4
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	Y
	TL 84 Lamp	Y
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	1-2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4-5R
Shade change by heat 熱變色性	0	4YG
	2hr	4-5YG

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Orange 2GL

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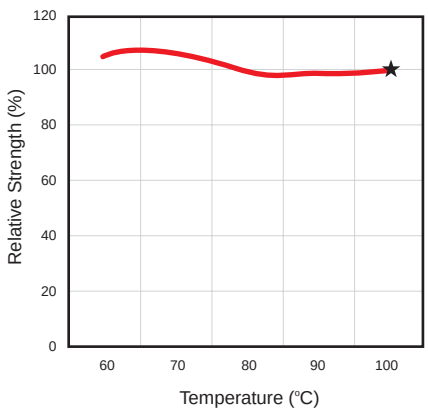
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	2-3	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	2	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	4-5						

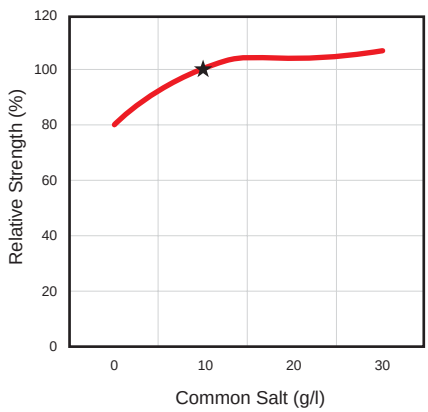
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	>6	Perspiration Light 耐汗日光	Acid	2.0 %	>6
	0.1 %	>6		Alkali		5-6R
	0.5 %	>6	Wet-Light 耐濕日光		0.2 %	6
	1.0 %	>6			2.0 %	6
	2.0 %	>6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



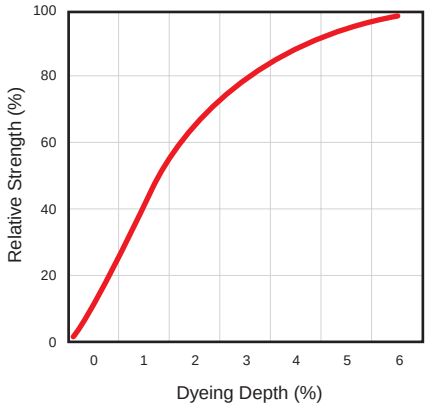
EVERLIGHT

Everdirect Light Scarlet F2G

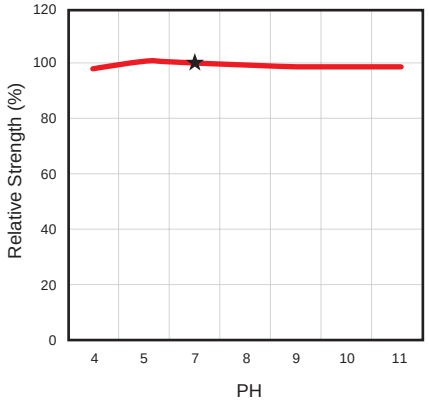
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		2
Solubility g/l 溶解度	80°C Water	20
Cross-Dyeing 多種纖維沾染	Acetate	3-4
	Cotton	1
	Nylon	2
	Polyester	4-5
	Acrylic	4-5
	Wool	1-2
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	R
	TL 84 Lamp	R
Discharge -ability 拔染性	Neutral 中性	2
	Alkaline 鹼性	2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	3Y
Shade change by heat 熱變色性	0	3-4B
	2hr	4-5Y

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Light Scarlet F2G

EVERLIGHT

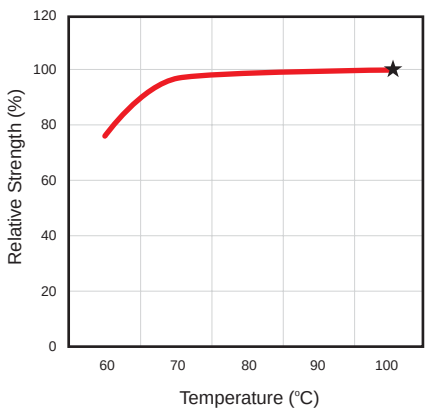
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	2-3	5	5	5	5
	ISO 105-C02		1.0%	4R	5	3	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4R	5	5	5	5	5	5
		Alkali 鹼		4R	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3-4						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	3R						

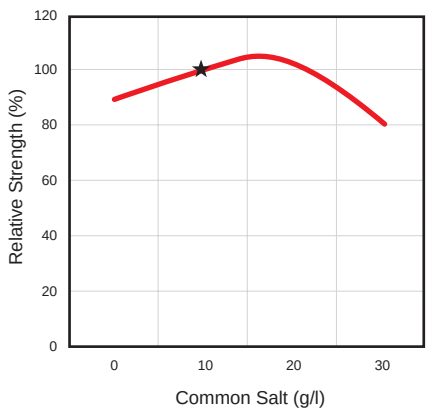
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	1	Perspiration Light 耐汗日光	Acid	2.0 %	3-4
	0.1 %	1-2		Alkali		3-4
	0.5 %	2-3	Wet-Light 耐濕日光		0.2 %	2Y
	1.0 %	3			2.0 %	3-4
	2.0 %	3-4				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



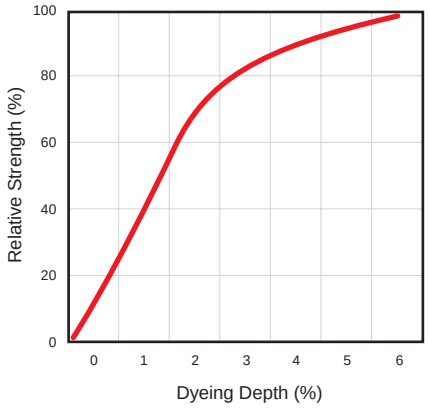
EVERLIGHT

Everdirect Supra Red BWS

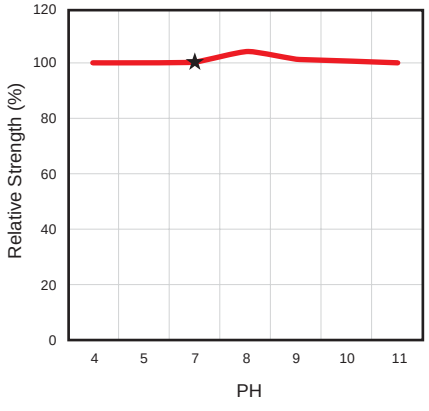
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		3
Solubility g/l 溶解度	80°C Water	100
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	1
	Polyester	4-5
	Acrylic	4-5
	Wool	2
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	B
	TL 84 Lamp	Y
Discharge -ability 拔染性	Neutral 中性	2
	Alkaline 鹼性	2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4-5Y
Shade change by heat 熱變色性	0	4
	2hr	4-5Y

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Red BWS

EVERLIGHT

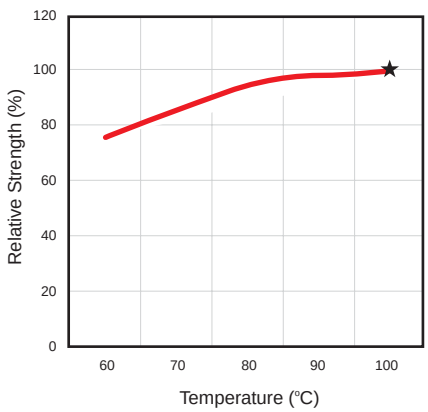
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	1-2	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	2-3	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4R	5	4	4-5	5	5	5
		Alkali 鹼		4R	5	3-4	4-5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	4Y						

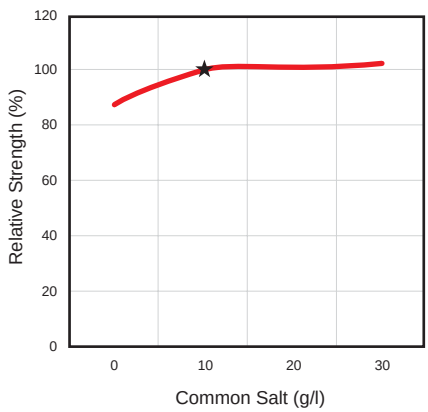
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	3-4	Perspiration Light 耐汗日光	Acid	2.0 %	4-5
	0.1 %	4		Alkali		4-5
	0.5 %	4	Wet-Light 耐濕日光		0.2 %	4
	1.0 %	4-5			2.0 %	4-5
	2.0 %	4-5				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



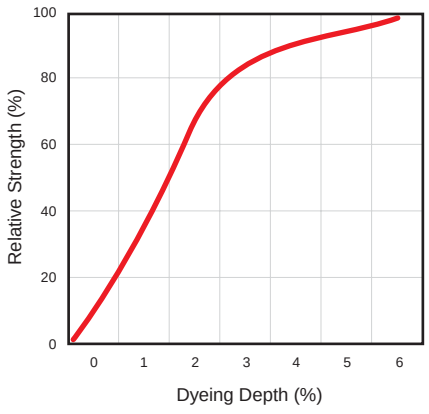
EVERLIGHT

Everdirect Light Rose FR

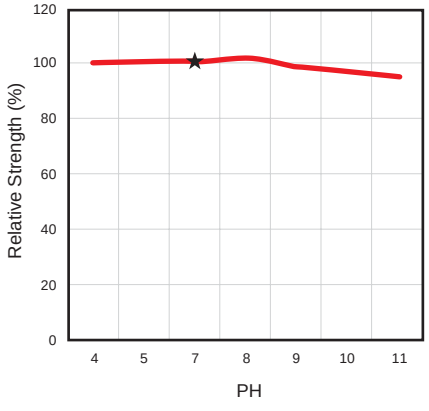
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		2
Solubility g/l 溶解度	80°C Water	100
Cross-Dyeing 多種纖維沾染	Acetate	4
	Cotton	1
	Nylon	1-2
	Polyester	4-5
	Acrylic	4-5
	Wool	1-2
Metallic ions 金屬離子	Fe^{2+} 鐵	3-4
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	B
	TL 84 Lamp	Y
Discharge -ability 拔染性	Neutral 中性	2
	Alkaline 鹼性	2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4B
Shade change by heat 熱變色性	0	4
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Light Rose FR

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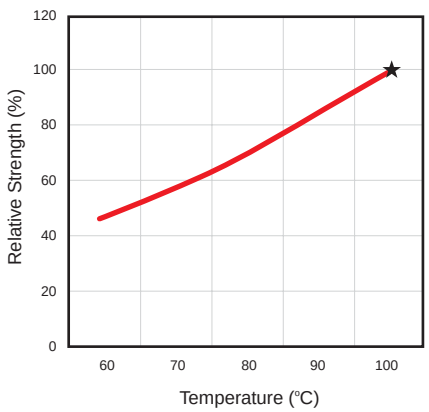
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	3	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	4	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4R	5	5	5	5	5	5
		Alkali 鹼		4R	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3-4						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	1Y						

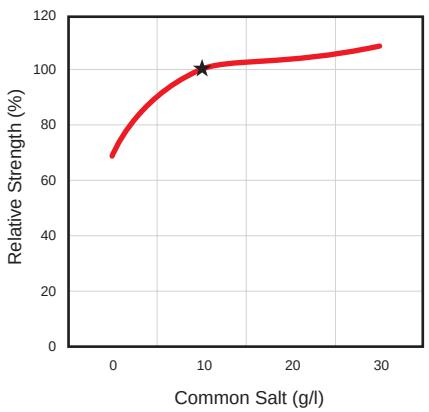
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	1	Perspiration Light 耐汗日光	Acid	2.0 %	3-4B
	0.1 %	1-2		Alkali		3-4B
	0.5 %	2-3	Wet-Light 耐濕日光		0.2 %	2
	1.0 %	3			2.0 %	3-4
	2.0 %	3-4				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



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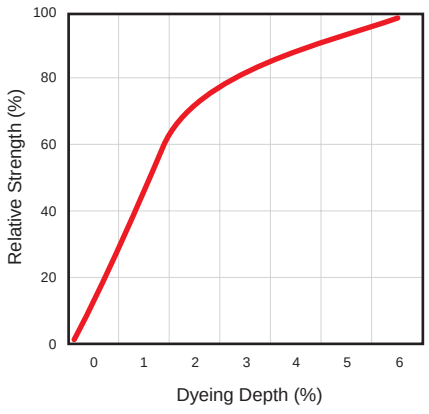
Everdirect Supra Rubine BL

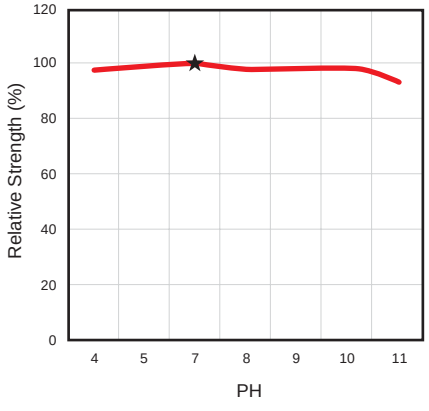
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		1-2
Solubility g/l 溶解度	80°C Water	60
Cross-Dyeing 多種纖維沾染	Acetate	5
	Cotton	1
	Nylon	2-3
	Polyester	4-5
	Acrylic	4-5
	Wool	3
Metallic ions 金屬離子	Fe^{2+} 鐵	4Y
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	B
	TL 84 Lamp	Y
Discharge -ability 拔染性	Neutral 中性	2
	Alkaline 鹼性	2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	3-4B
Shade change by heat 熱變色性	0	4B
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Rubine BL

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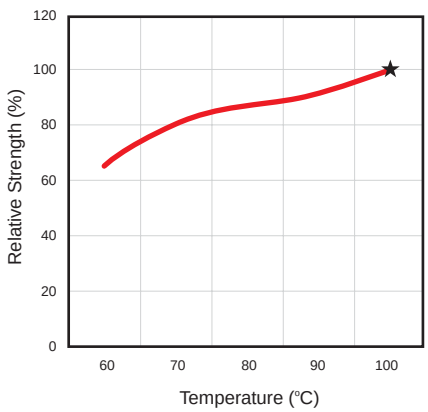
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	3	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	4-5	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	2Y						

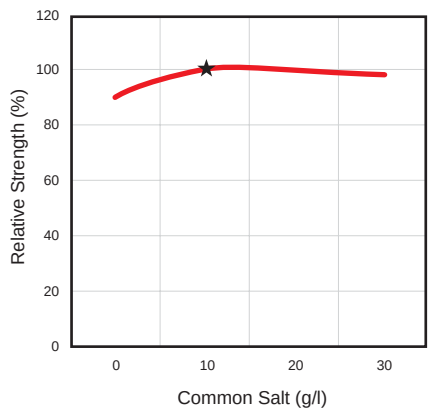
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	5-6
	0.1 %	6		Alkali		5-6Y
	0.5 %	>6	Wet-Light 耐濕日光		0.2 %	5-6
	1.0 %	>6			2.0 %	5-6
	2.0 %	>6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

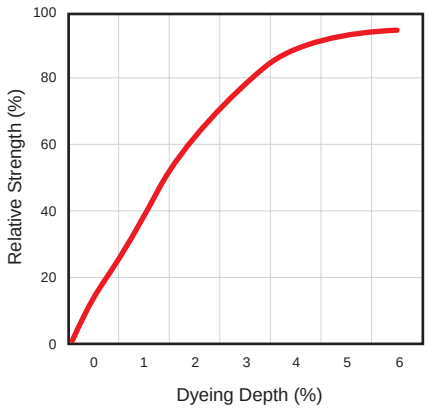


Everdirect Supra Brown GTL

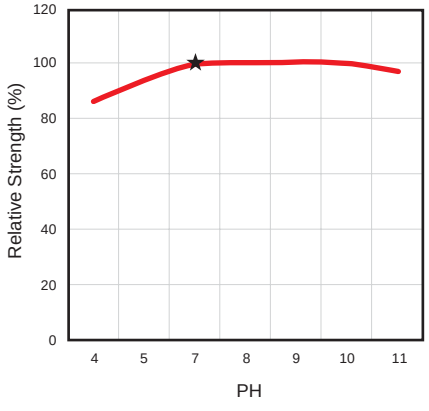
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		M
Migration Property 移染性		1-2
Solubility g/l 溶解度	80°C Water	70
Cross-Dyeing 多種纖維沾染	Acetate	3
	Cotton	1
	Nylon	1-2
	Polyester	4-5
	Acrylic	4
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4R
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	R
	TL 84 Lamp	R
Discharge -ability 拔染性	Neutral 中性	3-4
	Alkaline 鹼性	2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4
Shade change by heat 熱變色性	0	4
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Brown GTL

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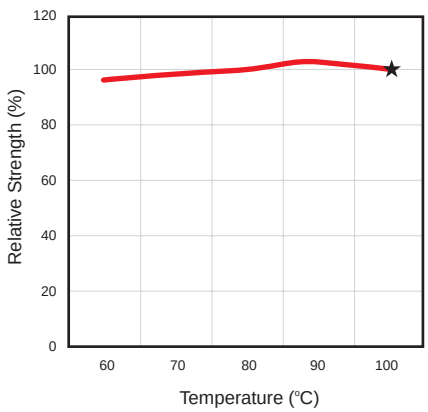
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	3-4	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	3-4	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5R	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3-4						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	3Y						

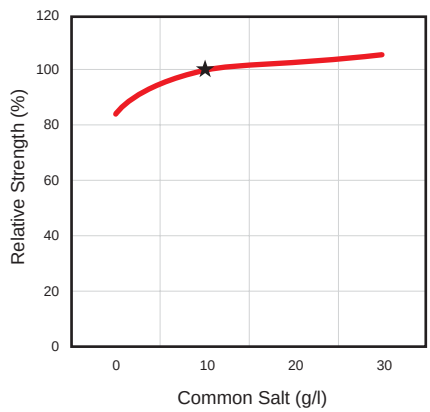
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	5-6
	0.1 %	5-6		Alkali		5-6
	0.5 %	5-6	Wet-Light 耐濕日光		0.2 %	5Y
	1.0 %	5-6			2.0 %	5-6
	2.0 %	5-6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

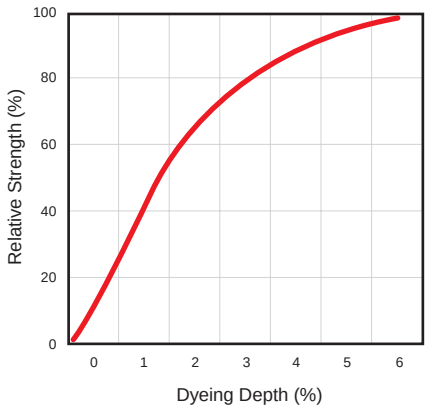


Everdirect Supra Blue FBL

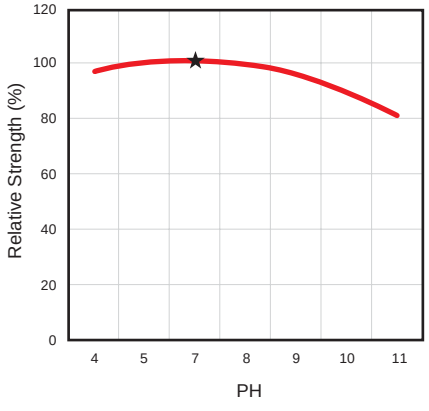
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		4
Solubility g/l 溶解度	80°C Water	60
Cross-Dyeing 多種纖維沾染	Acetate	4
	Cotton	1
	Nylon	1
	Polyester	4
	Acrylic	1-2
	Wool	1-2
Metallic ions 金屬離子	Fe^{2+} 鐵	3-4
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	2-3
	Alkaline 鹼性	2
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4Y
Shade change by heat 熱變色性	0	3-4YG
	2hr	4YG

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Blue FBL

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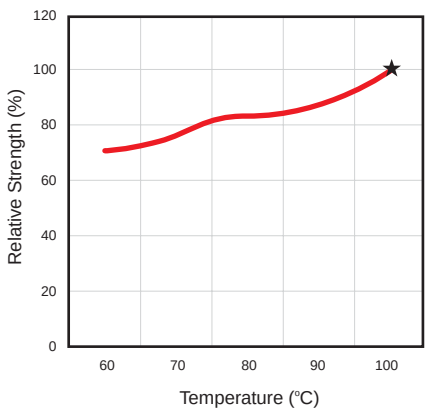
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	4	4-5	5	5	5
	ISO 105-C02		1.0%	4-5	5	2-3	4	5	4	5
Water 耐水	ISO 105-E01		1.0%	5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	2Y						

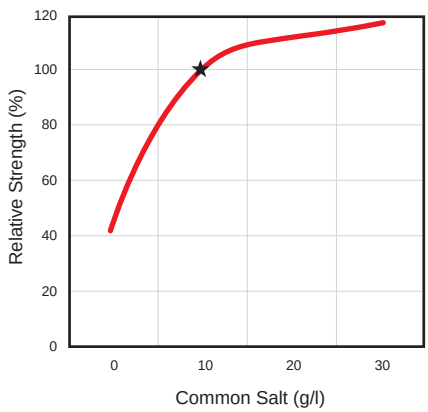
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	3-4Y
	0.1 %	5-6		Alkali		3-4Y
	0.5 %	5-6	Wet-Light 耐濕日光		0.2 %	5-6
	1.0 %	5-6			2.0 %	5-6
	2.0 %	5-6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



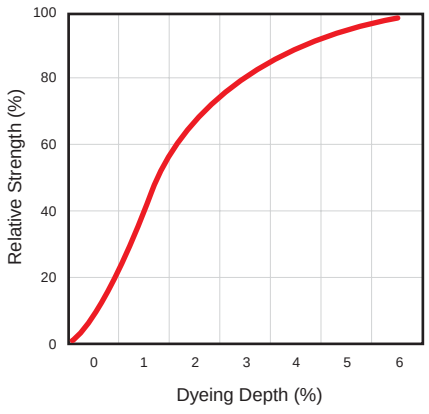
EVERLIGHT

Everdirect Supra Blue GRL

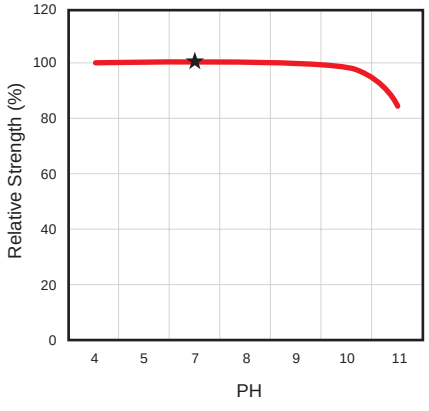
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		4
Solubility g/l 溶解度	80°C Water	60
Cross-Dyeing 多種纖維沾染	Acetate	4
	Cotton	1
	Nylon	1
	Polyester	4
	Acrylic	1-2
	Wool	1-2
Metallic ions 金屬離子	Fe^{2+} 鐵	3-4YD
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	2-3
	Alkaline 鹼性	2-3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	3-4Y
Shade change by heat 熱變色性	0	3YG
	2hr	3-4YG

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Blue GRL

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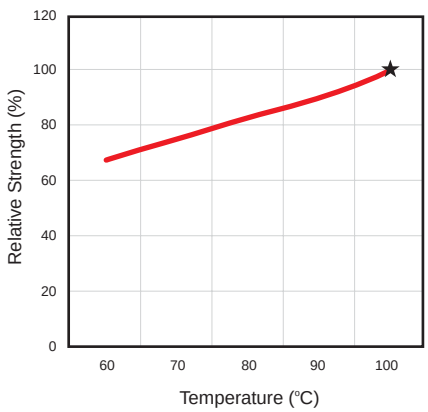
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	3-4	4-5	3	2	2-3	3	4-5
	ISO 105-C02		1.0%	4	3-4	1	1	3	1	4
Water 耐水	ISO 105-E01		1.0%	5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	3Y						

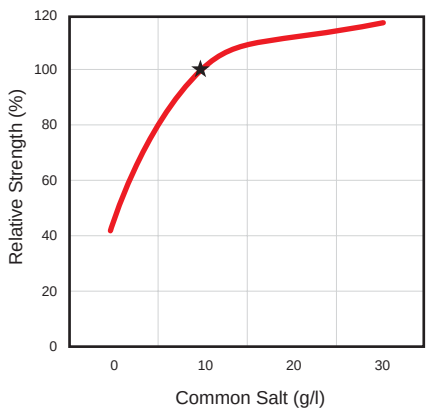
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	3-4Y
	0.1 %	5-6		Alkali		3-4Y
	0.5 %	5-6	Wet-Light 耐濕日光		0.2 %	5-6
	1.0 %	5-6			2.0 %	5-6
	2.0 %	5-6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



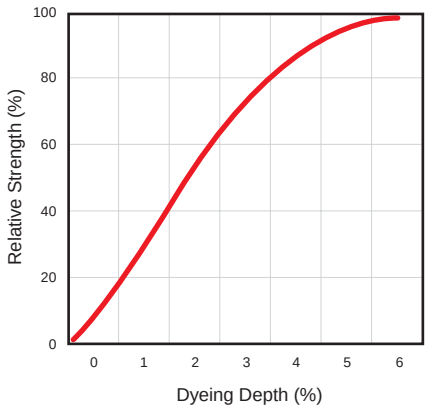
EVERLIGHT

Everdirect Supra Blue FFRL

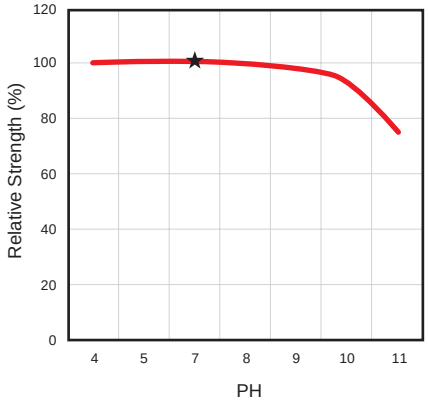
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		M
Migration Property 移染性		2-3
Solubility g/l 溶解度	80°C Water	10
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	2
	Polyester	3-4
	Acrylic	4-5
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	3
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	1
	Alkaline 鹼性	1
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	3
Shade change by heat 熱變色性	0	3-4
	2hr	4Y

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Blue FFRL

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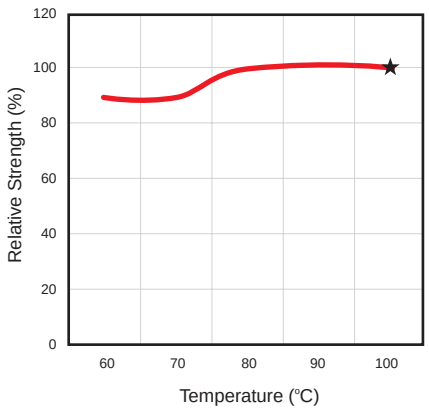
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	3	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	1	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3-4						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	2R						

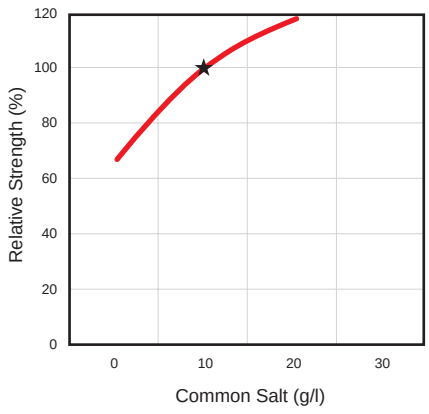
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	5-6
	0.1 %	6		Alkali		5-6
	0.5 %	6	Wet-Light 耐濕日光		0.2 %	5-6
	1.0 %	>6			2.0 %	5-6
	2.0 %	>6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

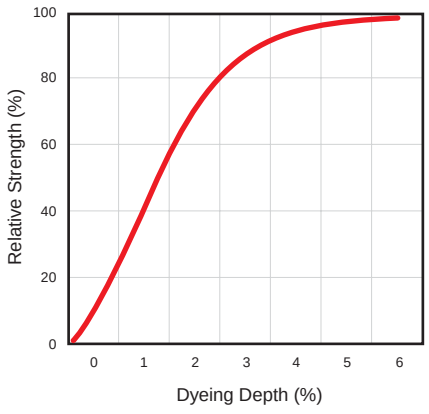


Everdirect Supra Blue 4BL H/C

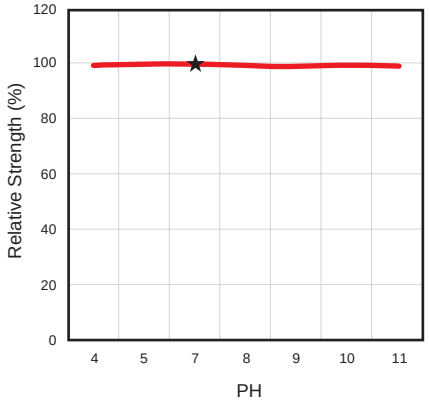
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		3
Solubility g/l 溶解度	80°C Water	50
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	2-3
	Polyester	4-5
	Acrylic	3
	Wool	2-3
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	2-3
	Alkaline 鹼性	2-3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4Y
Shade change by heat 熱變色性	0	4R
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Blue 4BL H/C

EVERLIGHT

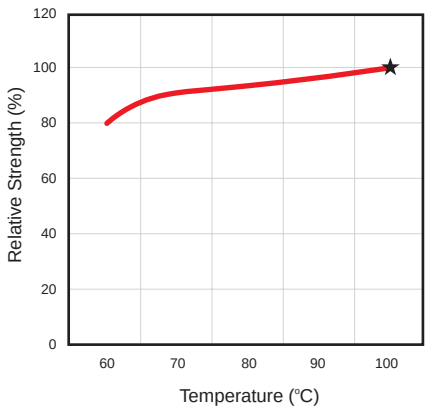
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	3	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	4	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	1-2R						

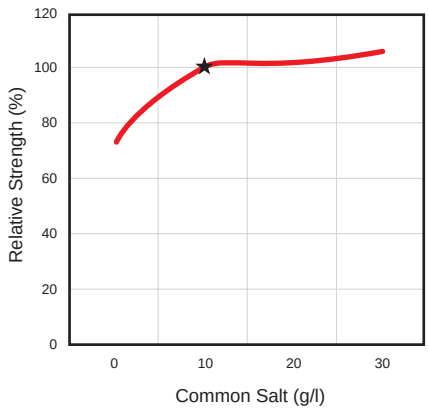
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	3	Perspiration Light 耐汗日光	Acid	2.0 %	5
	0.1 %	3-4		Alkali		5
	0.5 %	4	Wet-Light 耐濕日光		0.2 %	4R
	1.0 %	5			2.0 %	5
	2.0 %	5				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

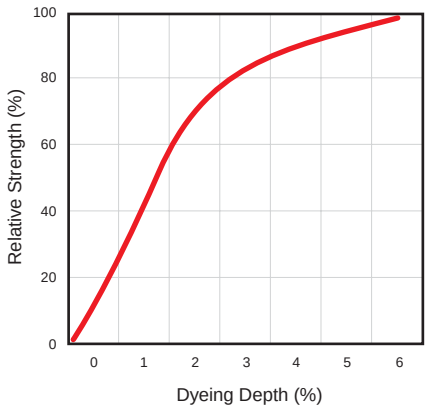


Everdirect Supra Blue BRL

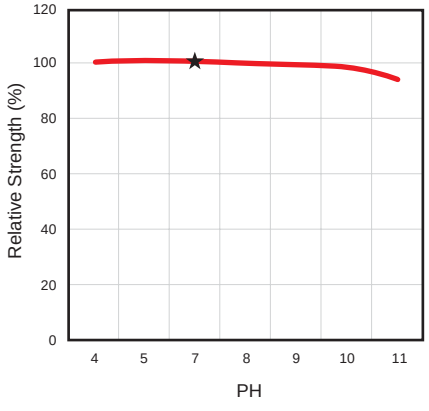
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		2
Solubility g/l 溶解度	80°C Water	50
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	1-2
	Polyester	4-5
	Acrylic	3
	Wool	2
Metallic ions 金屬離子	Fe^{2+} 鐵	4
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4Y
Shade change by heat 熱變色性	0	3-4R
	2hr	5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Blue BRL

EVERLIGHT

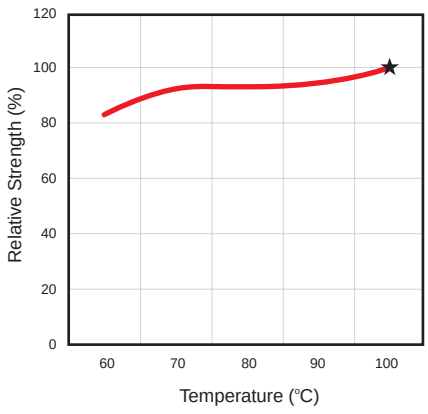
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	3	5	5	5	5
	ISO 105-C02		1.0%	4	5	4-5	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	1-2R						

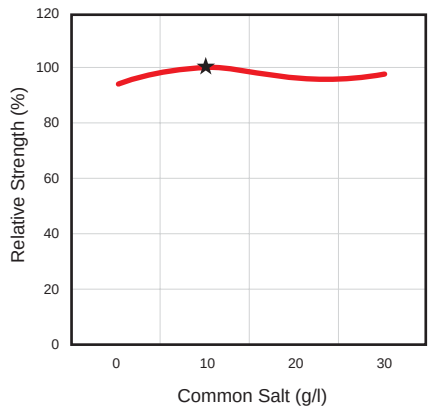
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	3	Perspiration Light 耐汗日光	Acid	2.0 %	5
	0.1 %	3		Alkali		5
	0.5 %	4	Wet-Light 耐濕日光		0.2 %	2R
	1.0 %	5			2.0 %	5
	2.0 %	5				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



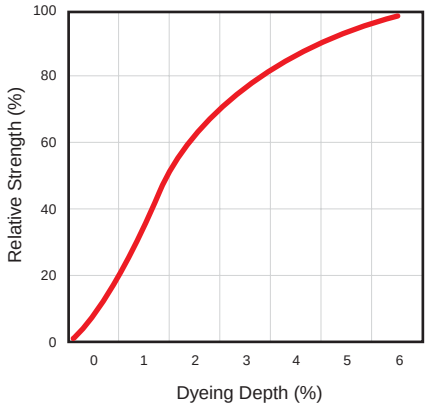
EVERLIGHT

Everdirect Supra Blue BRN

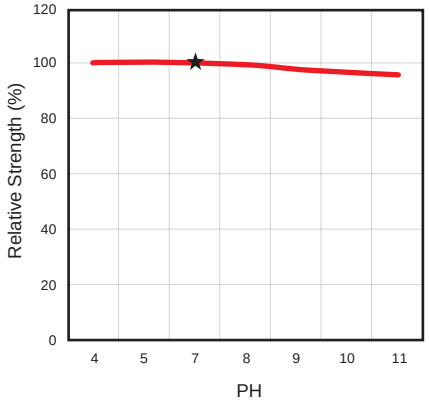
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		2
Solubility g/l 溶解度	80°C Water	30
Cross-Dyeing 多種纖維沾染	Acetate	4
	Cotton	1
	Nylon	2-3
	Polyester	4-5
	Acrylic	2-3
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	2-3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	3-4
Shade change by heat 熱變色性	0	4G
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Blue BRN

EVERLIGHT

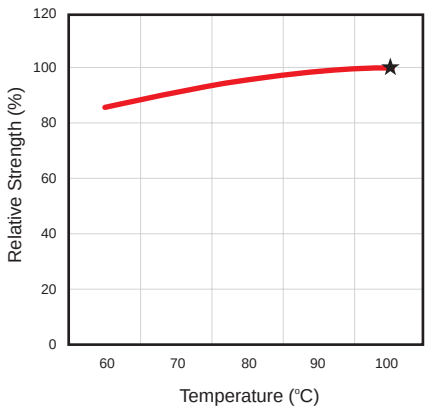
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	3	5	5	5	5
	ISO 105-C02		1.0%	4-5	5	3-4	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		2-3						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	1R						

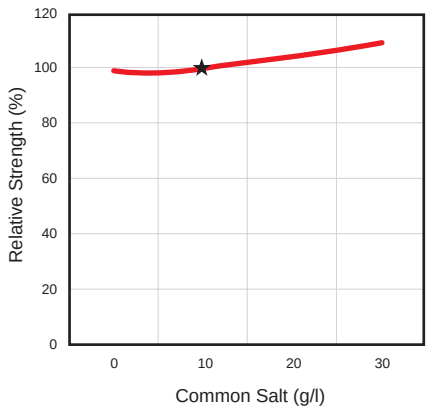
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	4	Perspiration Light 耐汗日光	Acid	2.0 %	5
	0.1 %	4-5		Alkali		5
	0.5 %	5	Wet-Light 耐濕日光		0.2 %	3-4
	1.0 %	5			2.0 %	5
	2.0 %	5				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



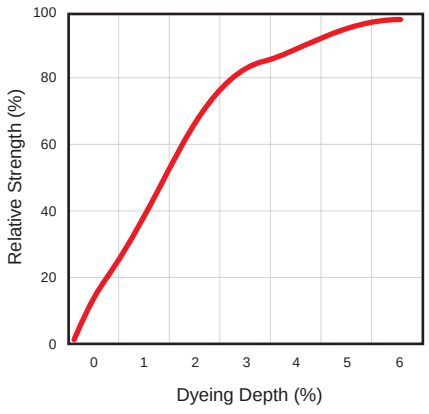
EVERLIGHT

Everdirect Supra Grey CGL

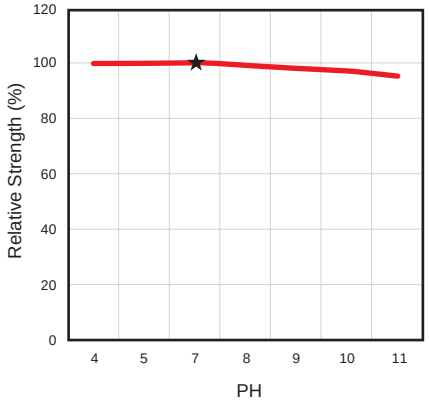
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		2-3
Solubility g/l 溶解度	80°C Water	70
Cross-Dyeing 多種纖維沾染	Acetate	4-5
	Cotton	1
	Nylon	2
	Polyester	4-5
	Acrylic	3
	Wool	3
Metallic ions 金屬離子	Fe^{2+} 鐵	4
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4Y
Shade change by heat 熱變色性	0	4
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Supra Grey CGL

EVERLIGHT

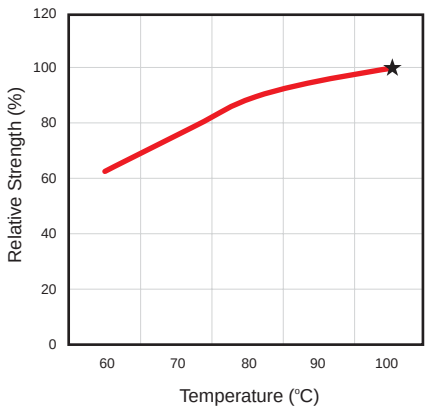
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		1.0%	4-5	5	4	5	5	5	5
	ISO 105-C02		1.0%	3-4	5	5	5	5	5	5
Water 耐水	ISO 105-E01		1.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	1.0%	4-5R	5	5	5	5	5	5
		Alkali 鹼		4-5R	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	1.0%	5						
		Wet 溼		3-4						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			1.0%	3Y						

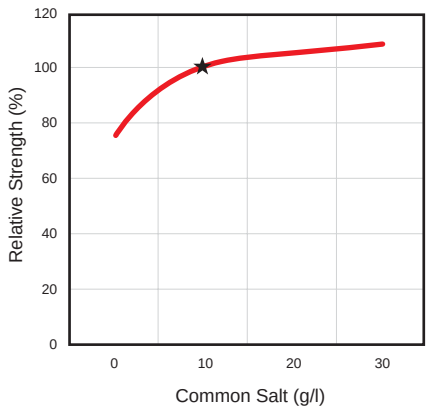
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	5-6	Perspiration Light 耐汗日光	Acid	2.0 %	5-6
	0.1 %	5-6		Alkali		5-6
	0.5 %	5-6	Wet-Light 耐濕日光		0.2 %	5-6
	1.0 %	6			2.0 %	6
	2.0 %	>6				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

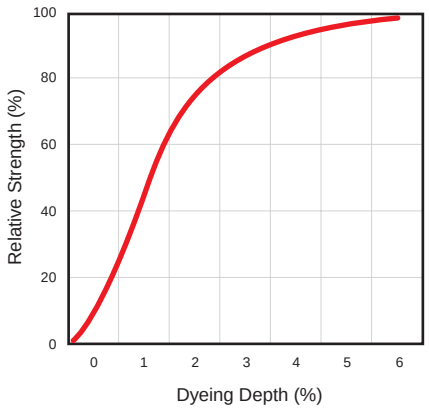


Everdirect Cupro Black HRN

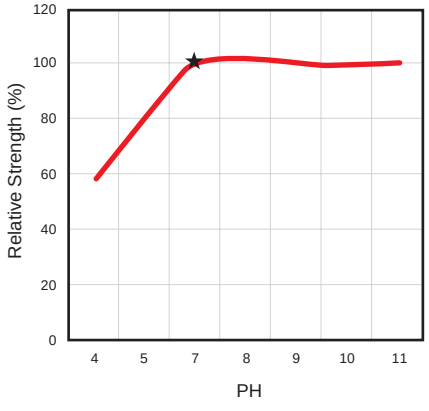
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		2
Solubility g/l 溶解度	80°C Water	60
Cross-Dyeing 多種纖維沾染	Acetate	3-4
	Cotton	1
	Nylon	1
	Polyester	3-4
	Acrylic	3
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4B
Shade change by heat 熱變色性	0	3R
	2hr	4-5R

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Cupro Black HRN

EVERLIGHT

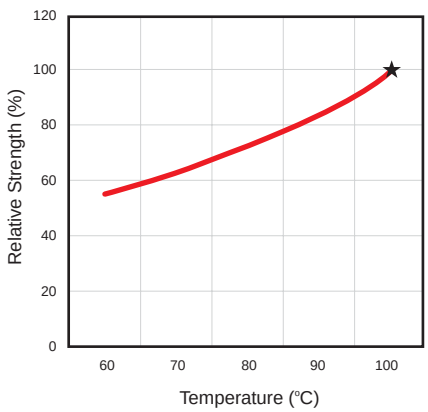
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		2.0%	4-5	5	3-4	5	5	5	5
	ISO 105-C02		2.0%	4	5	2-3	5	5	5	5
Water 耐水	ISO 105-E01		2.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	2.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	2.0%	4-5						
		Wet 溼		2						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			2.0%	1-2R						

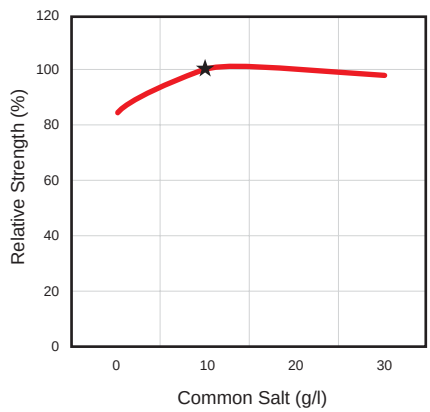
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	1	Perspiration Light 耐汗日光	Acid	2.0 %	3-4
	0.1 %	1		Alkali		3-4
	0.5 %	1-2	Wet-Light 耐濕日光		0.2 %	1-2
	1.0 %	2-3			2.0 %	3-4
	2.0 %	3-4				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



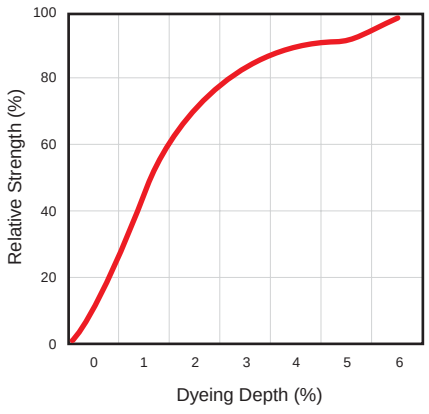
EVERLIGHT

Everdirect Fast Black B-160

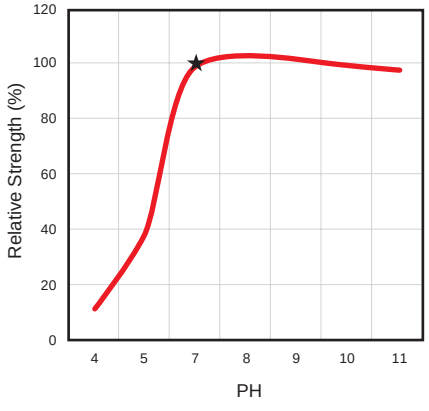
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		1-2
Solubility g/l 溶解度	80°C Water	20
Cross-Dyeing 多種纖維沾染	Acetate	3
	Cotton	1
	Nylon	1-2
	Polyester	3-4
	Acrylic	2-3
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4B
Shade change by heat 熱變色性	0	3R
	2hr	4R

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Fast Black B-160

EVERLIGHT

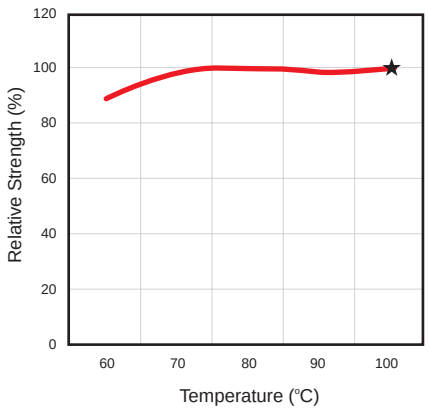
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		2.0%	4-5	5	3-4	5	5	5	5
	ISO 105-C02		2.0%	4-5	5	3	5	5	5	5
Water 耐水	ISO 105-E01		2.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	2.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	2.0%	4-5						
		Wet 溼		2						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			2.0%	1-2YR						

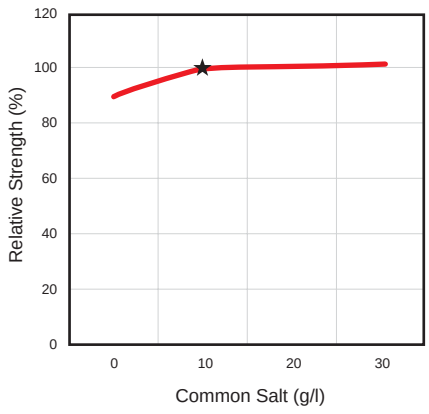
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	1	Perspiration Light 耐汗日光	Acid	2.0 %	4
	0.1 %	1		Alkali		4
	0.5 %	2	Wet-Light 耐濕日光		0.2 %	1-2
	1.0 %	3			2.0 %	3-4
	2.0 %	4				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

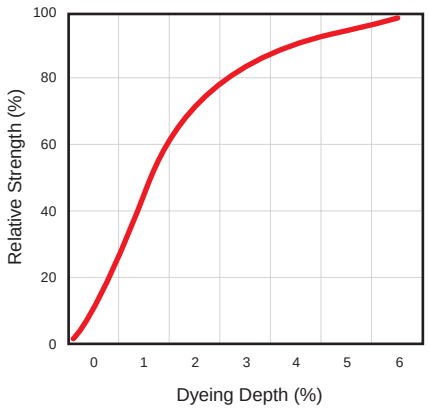


Everdirect Fast Black VSF 600

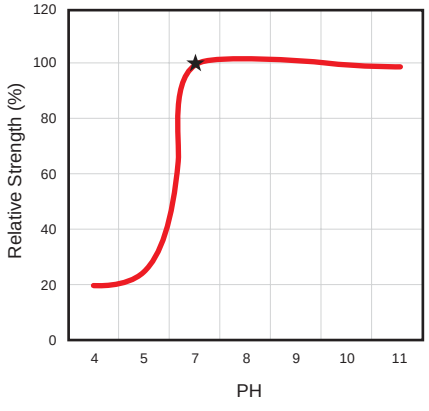
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		1-2
Solubility g/l 溶解度	80°C Water	30
Cross-Dyeing 多種纖維沾染	Acetate	3
	Cotton	1
	Nylon	1-2
	Polyester	3-4
	Acrylic	2-3
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5
	Cu^{2+} 銅	4-5
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	2-3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4B
Shade change by heat 熱變色性	0	3R
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Fast Black VSF 600

EVERLIGHT

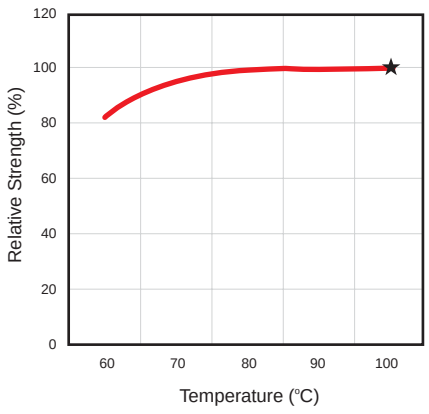
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		2.0%	4-5	5	3-4	5	5	5	5
	ISO 105-C02		2.0%	4R	5	3	4	5	5	5
Water 耐水	ISO 105-E01		2.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	2.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	2.0%	4-5						
		Wet 溼		2						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			2.0%	2YR						

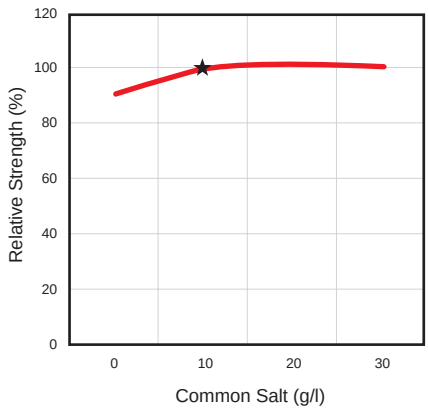
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	1	Perspiration Light 耐汗日光	Acid	2.0 %	4
	0.1 %	1		Alkali		4
	0.5 %	2	Wet-Light 耐濕日光		0.2 %	1-2
	1.0 %	3			2.0 %	4
	2.0 %	4				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)

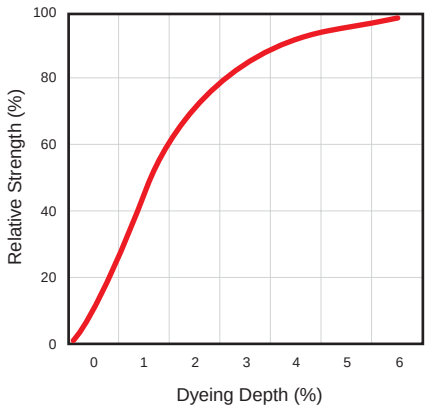


Everdirect Black ANBN H/C

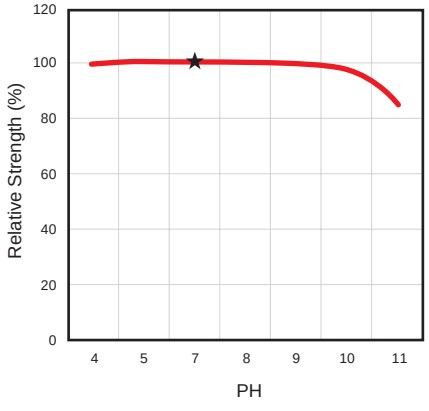
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		C
Exhaustion classification by Temp. 染色溫度分類		M
Migration Property 移染性		2
Solubility g/l 溶解度	80°C Water	40
Cross-Dyeing 多種纖維沾染	Acetate	1-2
	Cotton	1
	Nylon	1
	Polyester	1-2
	Acrylic	1-2
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5Y
	Cu^{2+} 銅	4Y
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4Y
Shade change by heat 熱變色性	0	3G
	2hr	4

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Black ANBN H/C

EVERLIGHT

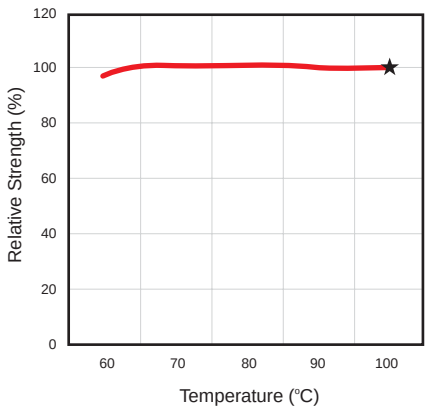
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		2.0%	4-5	4	1-2	2-3	4-5	4-5	5
	ISO 105-C02		2.0%	4	3-4	1-2	3	5	4	4-5
Water 耐水	ISO 105-E01		2.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	2.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	2.0%	4-5						
		Wet 溼		2						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			2.0%	2YR						

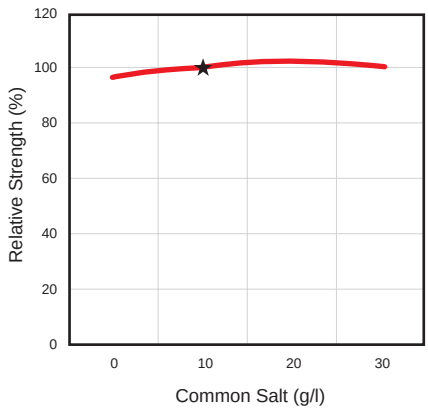
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	1	Perspiration Light 耐汗日光	Acid	2.0 %	3
	0.1 %	1		Alkali		3
	0.5 %	1	Wet-Light 耐濕日光		0.2 %	1-2
	1.0 %	2			2.0 %	3Y
	2.0 %	3				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



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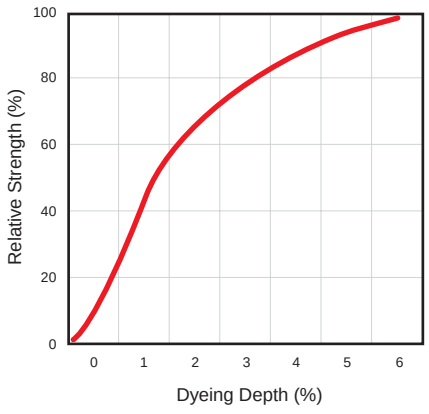
Everdirect Fast Black B-300

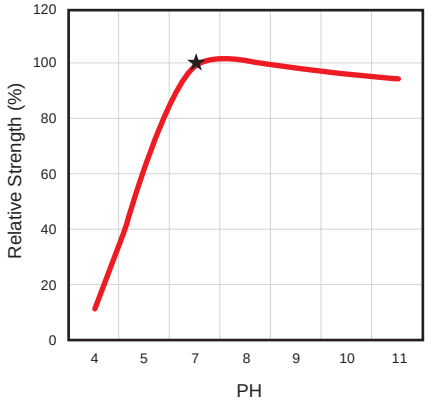
Dyeing Properties 特性

Characteristics		Evaluation
S.D.C. classification 分類		B
Exhaustion classification by Temp. 染色溫度分類		H
Migration Property 移染性		1-2
Solubility g/l 溶解度	80°C Water	40
Cross-Dyeing 多種纖維沾染	Acetate	1
	Cotton	1
	Nylon	1
	Polyester	2
	Acrylic	1-2
	Wool	1
Metallic ions 金屬離子	Fe^{2+} 鐵	4-5Y
	Cu^{2+} 銅	4BG
Color constancy 色恆性	Tungsten Lamp	G
	TL 84 Lamp	G
Discharge -ability 拔染性	Neutral 中性	3
	Alkaline 鹼性	3
Shade change by fixing agent 固色後變色性	Polyamine 聚醯胺	4B
Shade change by heat 熱變色性	0	3R
	2hr	4-5

Build-up (染深色性)



pH dependency (pH依存性)



Everdirect Fast Black B-300

EVERLIGHT

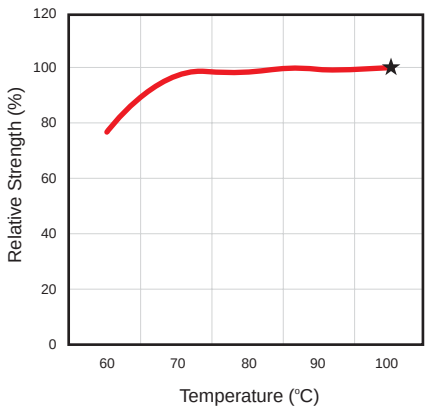
Fastness after fixing treatment 固色後牢度表

Evaluation / Fastness			Depth of shade 染色濃度	Color change 變褪色	Staining 污染					
					Acetate 醋酸纖維	Cotton 棉	Nylon 尼龍	Polyester 聚酯	Acrylic 壓克力	Wool 羊毛
Washing 耐水洗	AATCC 61-2A		2.0%	4-5	5	3-4	5	5	5	5
	ISO 105-C02		2.0%	4-5	4-5	3	4	5	5	5
Water 耐水	ISO 105-E01		2.0%	4-5	5	5	5	5	5	5
Perspiration 耐汗	ISO 105-E04	Acid 酸	2.0%	4-5	5	5	5	5	5	5
		Alkali 鹼		4-5	5	5	5	5	5	5
Rubbing 耐摩擦	ISO 105-X12	Dry 乾	2.0%	4-5						
		Wet 溼		2						
Chlorinated Water 耐氯水 (20ppm) ISO 105-E03			2.0%	2-3YR						

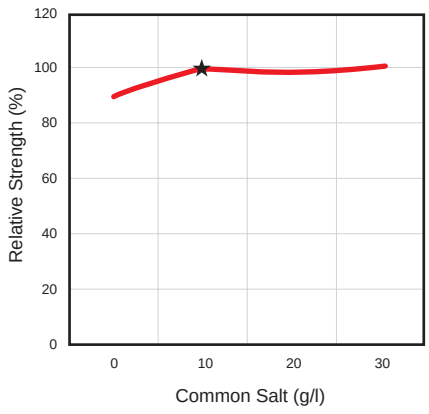
Light fastness before fixing treatment 固色前日光堅牢度

Evaluation	Dyeing Depth 染色濃度	Grade ISO Blue Scale	Evaluation		Dyeing Depth 染色濃度	Grade ISO Blue Scale
Artificial Light (Xenon-Arc Lamp) 耐日光	0.03 %	1	Perspiration Light 耐汗日光	Acid	2.0 %	4
	0.1 %	1		Alkali		4
	0.5 %	2	Wet-Light 耐濕日光		0.2 %	1-2
	1.0 %	3			2.0 %	4
	2.0 %	4				

Temperature dependency (溫度依存性)



Salt dependency (鹽依存性)



Note

Note

此內容資料及建議是在我們細心下完成，但未能涵蓋客戶各種可能發生之情況。此資料謹以作爲客戶參考並依現況斟酌使用。

永光化學工業股份有限公司－技術服務處

The contented information and recommendation presented here were carried out with the utmost care, but connot be extended to cover every possible case. They are intented to serve as non-binding reference and must be adapted to the prevailing condition.

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Technical Service Division

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