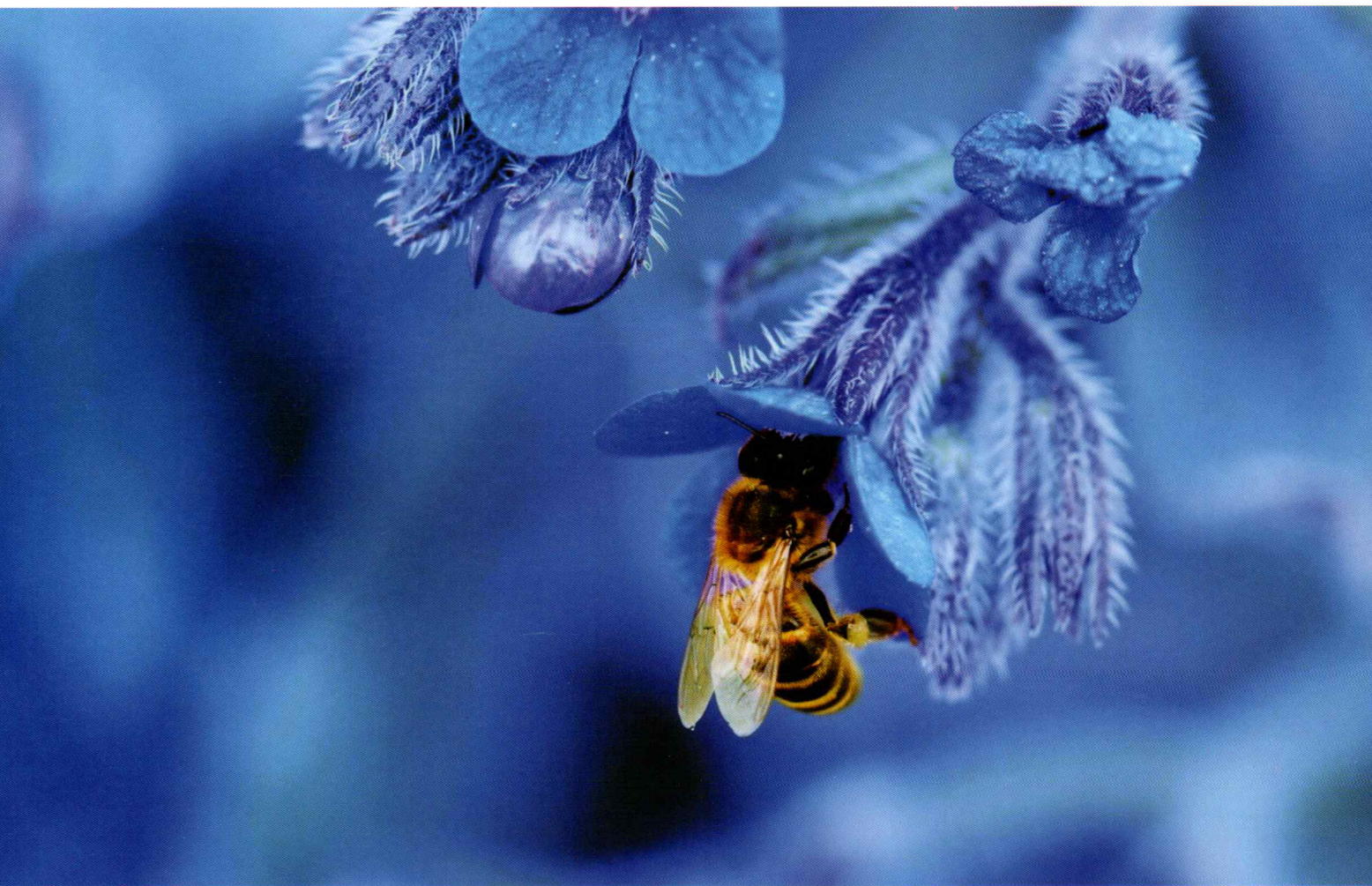


丽源素®  
LIYUANSOL®

# 经典型 活性染料

CLASSIC SERIES



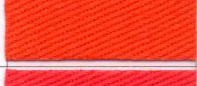
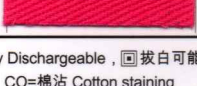
COLOR ROOT

湖北丽源科技股份有限公司  
HUBEI COLOR ROOT TECHNOLOGY CO.,LTD

# 丽源素 经典型 活性染料 纤维素纤维染色

LIYUANSOL CLASSIC Series For Cellulose

- 1、全色谱, 稳定的染色性能  
Full range of shades, stable dyeing properties
- 2、广泛的适用性, 可用于浸染、轧染、冷轧堆  
Wide application performance suitable for exhaustion, continuous and CPB dyeing
- 3、能够满足各主要色牢度的要求  
Can achieve mainly fastness requirement
- 4、经典型染料, 含乙烯砷与一氯均三嗪基团  
Classic reactive dyes based on vinyl sulfone and monochlorotriazine group

| 丽源素经典型染料<br>LIYUANSOL CLASSIC |                                                                                     | 溶解度<br>Solubility 50 °C | 耐晒色牢度<br>Light fastness<br>ISO105-B02 |       | 耐洗色牢度<br>Washing fastness<br>ISO105-C06 C15 |     | 耐汗渍色牢度<br>Perspiration<br>AATCC 15 |     | 耐氯水色牢度<br>Chlorinated water<br>ISO105-E03 | 耐摩擦色牢度<br>Rubbing fastness<br>AATCC 8 |
|-------------------------------|-------------------------------------------------------------------------------------|-------------------------|---------------------------------------|-------|---------------------------------------------|-----|------------------------------------|-----|-------------------------------------------|---------------------------------------|
| 2.0 %                         |                                                                                     | g/L                     | 1/6SD                                 | 1/1SD | CH                                          | CO  | CH                                 | CO  | 10ppm                                     | 干Dry / 湿Wet                           |
| 嫩黄4GL<br>Flavine              |    | 100                     | 5-6                                   | 6     | 4-5                                         | 4-5 | 5                                  | 5   | 4-5                                       | 4-5/3-4                               |
| 黄3RF<br>Yellow                |    | 100                     | 5                                     | 5-6   | 4-5                                         | 4-5 | 5                                  | 5   | 4-5                                       | 4-5/3-4                               |
| 黄3RE150%<br>Yellow            |   | 100                     | 5                                     | 5-6   | 4-5                                         | 4-5 | 5                                  | 5   | 4-5                                       | 4-5/3-4                               |
| 金黄RNL<br>G.Yellow             |  | 100                     | 4-5                                   | 5     | 5                                           | 5   | 4-5                                | 4-5 | 4                                         | 5/4                                   |
| 艳橙3R<br>Br.Orange             |  | 150                     | 3-4                                   | 4-5   | 5                                           | 5   | 4-5                                | 4-5 | 4                                         | 5/4                                   |
| 橙F-2R<br>Orange               |  | 80                      | 3-4                                   | 4     | 4-5                                         | 4   | 4-5                                | 4   | 4-5                                       | 4-5/3-4                               |
| 大红F-2G<br>Scarlet             |  | 100                     | 3-4                                   | 4     | 4-5                                         | 4-5 | 4-5                                | 4-5 | 4-5                                       | 4/3                                   |
| 大红GGN<br>Scarlet              |  | 80                      | 3-4                                   | 4     | 4-5                                         | 4-5 | 4-5                                | 4-5 | 4-5                                       | 4/3                                   |
| 大红HS-4G<br>Scarlet            |  | 80                      | 3-4                                   | 4     | 4-5                                         | 4-5 | 4-5                                | 4-5 | 4-5                                       | 4/3                                   |
| 艳红F-6B<br>Br.Red              |  | 70                      | 3-4                                   | 4-5   | 5                                           | 4-5 | 4-5                                | 4-5 | 4                                         | 4-5/3                                 |
| 红F-2B<br>Red                  |  | 100                     | 3-4                                   | 4     | 4-5                                         | 4-5 | 4-5                                | 4-5 | 4                                         | 4-5/3                                 |
| 红3BF<br>Red                   |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4-5 | 5                                  | 4-5 | 4-5                                       | 4-5/3                                 |
| 红3BE150%<br>Red               |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4-5 | 5                                  | 4-5 | 4-5                                       | 4-5/3                                 |
| 红BES<br>Red                   |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4-5 | 5                                  | 4-5 | 4                                         | 4-5/3                                 |

备注Note: □可拔白 Fully Dischargeable, ◻拔白可能泛黄 Semi-Dischargeable, yellowish may occur, ◻可浅色拔白 Dischargeable for pale shade, ■不可拔白 Not Dischargeable, CH=色变 Color change, CO=棉沾 Cotton staining



5、经济型高品质活性染料，性价比高

Economical reactive dyestuff in reliable quality and performance, Higher cost effectiveness

6、多种产品可用于拔白，防印工艺

Some suitable for discharge / resist printing

7、鲜艳色彩拓展了色空间，拼色更容易

More brilliant shades enlarge color space and make color matching easier

8、翠兰/艳绿和藏青的多重选择

Multiple choice for turquoise / brilliant green and navy

| 丽源素经典型染料<br>LIYUANSOL CLASSIC |   |  | 溶解度<br>Solubility 50 °C | 耐晒色牢度<br>Light fastness<br>ISO105-B02 |       | 耐洗色牢度<br>Washing fastness<br>ISO105-C06 C1S |     | 耐汗渍色牢度<br>Perspiration<br>AATCC 15 |     | 耐氯水色牢度<br>Chlorinated water<br>ISO105-E03 | 耐摩擦色牢度<br>Rubbing fastness<br>AATCC 8 |
|-------------------------------|---|--|-------------------------|---------------------------------------|-------|---------------------------------------------|-----|------------------------------------|-----|-------------------------------------------|---------------------------------------|
| 2.0 %                         |   |  | g/L                     | 1/6SD                                 | 1/1SD | CH                                          | CO  | CH                                 | CO  | 10ppm                                     | 干Dry / 湿Wet                           |
| 红RB<br>Red                    | ■ |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/3                                 |
| 红BS<br>Red                    | ■ |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/3                                 |
| 深红EX-D<br>Deep Red            | ■ |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/3                                 |
| 红E-3B<br>Red                  | □ |  | 100                     | 3-4                                   | 4     | 5                                           | 4-5 | 5                                  | 4-5 | 4-5                                       | 4-5/3-4                               |
| 紫7R<br>Violet                 | ■ |  | 100                     | 3-4                                   | 4     | 5                                           | 4-5 | 5                                  | 4-5 | 4-5                                       | 4-5/3-4                               |
| 紫5R<br>Violet                 | ■ |  | 100                     | 6                                     | 6-7   | 4-5                                         | 4-5 | 4B                                 | 5   | 4-5                                       | 4-5/3-4                               |
| 翠兰G150%<br>Turq. Blue         | ■ |  | 100                     | 5                                     | 6     | 4-5                                         | 3-4 | 5                                  | 4-5 | 3-4Y                                      | 4-5/3                                 |
| 翠兰G266%<br>Turq. Blue         | ■ |  | 150                     | 5                                     | 6     | 4-5                                         | 3-4 | 5                                  | 4-5 | 3-4Y                                      | 4-5/3                                 |
| 绿6B<br>Green                  | ■ |  | 150                     | 5                                     | 6     | 4-5                                         | 3-4 | 5                                  | 4-5 | 3-4Y                                      | 4-5/3                                 |
| 艳蓝R s/p<br>Br. Blue           | ■ |  | 100                     | 6                                     | 7     | 4-5                                         | 4-5 | 5                                  | 5   | 4-5                                       | 4-5/3-4                               |
| 宝石蓝RN<br>Sapphire             | ■ |  | 80                      | 6                                     | 6-7   | 4-5                                         | 4-5 | 5                                  | 5   | 4-5                                       | 4-5/3-4                               |
| 蓝BB133%<br>Blue               | ■ |  | 100                     | 6                                     | 7     | 5                                           | 4-5 | 4-5                                | 4-5 | 4                                         | 5/3-4                                 |
| 宝蓝HS-DR<br>Blue               | ■ |  | 100                     | 6                                     | 7     | 5                                           | 4-5 | 4-5                                | 4-5 | 4                                         | 5/3-4                                 |
| 蓝BF<br>Blue                   | ■ |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4-5 | 4-5                                | 4-5 | 4                                         | 4-5/3                                 |
| 蓝M-2GE<br>Blue                | ■ |  | 80                      | 3-4                                   | 4     | 4-5                                         | 4   | 4                                  | 4-5 | 3-4                                       | 4/3                                   |

备注Note: □可拔白 Fully Dischargeable, ■可浅色拔白 Dischargeable for pale shade, ■不可拔白 Not Dischargeable, CH=色变 Color change, CO=棉沾 Cotton staining

# 丽源素 经典型 活性染料, 纤维素纤维染色

## LIYUANSOL CLASSIC Series For Cellulose

### 深黑系列 Jet Black Series

- 1、经济型深黑-易清洗  
Economical deep black - easy washing off
- 2、全面优良的水洗色牢度  
General good washing fastness
- 3、显著的高质量, 可信赖的高接触色牢度  
Remarkable high quality and reliable contact fastness

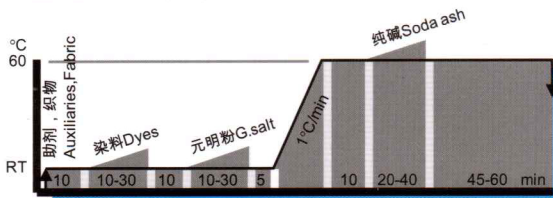
| 丽源素经典型染料<br>LIYUANSOL CLASSIC |                                                                                     | 溶解度<br>Solubility 50 °C | 耐晒色牢度<br>Light fastness<br>ISO105-B02 |       | 耐洗色牢度<br>Washing fastness<br>ISO105-C06 C1S |     | 耐汗渍色牢度<br>Perspiration<br>AATCC 15 |     | 耐氯水色牢度<br>Chlorinated water<br>ISO105-E03 | 耐摩擦色牢度<br>Rubbing fastness<br>AATCC 8 |
|-------------------------------|-------------------------------------------------------------------------------------|-------------------------|---------------------------------------|-------|---------------------------------------------|-----|------------------------------------|-----|-------------------------------------------|---------------------------------------|
| 藏青2.0 %                       | 黑6.0 %                                                                              | g/L                     | 1/6SD                                 | 1/1SD | CH                                          | CO  | CH                                 | CO  | 10ppm                                     | 干Dry / 湿Wet                           |
| 藏青GG<br>Navy                  |    | 100                     | 3-4                                   | 4     | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/3                                 |
| 藏青FR-GB<br>Navy               |    | 100                     | 3-4                                   | 4     | 4-5                                         | 4-5 | 5                                  | 5   | 3-4                                       | 4-5/3                                 |
| 黑B 150%<br>Black              |   | 100                     | 3                                     | 4     | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/2-3                               |
| 藏青L-3G<br>Navy                |  | 100                     | 3                                     | 4     | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/2-3                               |
| 黑FL-N<br>Black                |  | 100                     | 3                                     | 4     | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/2-3                               |
| 黑ED-G<br>Black                |  | 100                     | 3                                     | 4     | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/2-3                               |
| 黑WNN<br>Black                 |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4   | 5                                  | 4-5 | 4                                         | 4-5/2-3                               |
| 黑FWN<br>Black                 |  | 100                     | 3-4                                   | 4     | 4-5                                         | 4   | 5                                  | 4-5 | 4                                         | 4-5/2-3                               |
| 黑DN<br>Black                  |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4   | 5                                  | 4-5 | 4                                         | 4-5/2-3                               |
| 黑FW-GR H/C<br>Black           |  | 100                     | 3-4                                   | 4     | 4-5                                         | 4   | 5                                  | 4-5 | 3-4                                       | 4-5/2-3                               |
| 黑R H/C<br>Black               |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4   | 5                                  | 4-5 | 3-4                                       | 4-5/2-3                               |
| 黑BSP<br>Black                 |  | 100                     | 4                                     | 4-5   | 4-5                                         | 4   | 5                                  | 4-5 | 4                                         | 4-5/2-3                               |
| 黑L-ED<br>Black                |  | 100                     | 3                                     | 4     | 4-5                                         | 4-5 | 5                                  | 4-5 | 3-4                                       | 4-5/2-3                               |

备注Note: □可拔白 Fully Dischargeable, ◻拔白可能泛黄 Semi-Dischargeable, yellowish may occur, ◻可浅色拔白 Dischargeable for pale shade, ■不可拔白 Not Dischargeable, CH=色变 Color change, CO=棉沾 Cotton staining

## 浸染工艺

Exhaustion Dyeing Process

中温染色 Warm Dyeing, 60°C

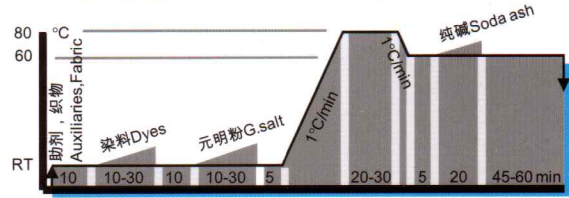


盐碱表 Chemical Dosage

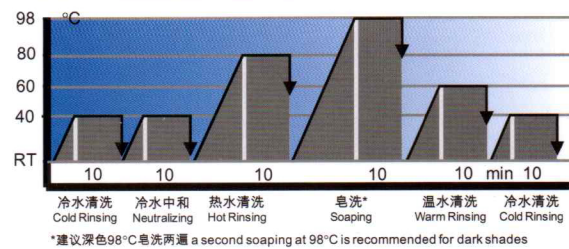
非丝光棉, non-mercerized cotton, LR10:1

| 染料 Dyestuff        | %   | <0.5 | 0.5-1 | 1-2 | 2-3 | 3-5 | >5  |
|--------------------|-----|------|-------|-----|-----|-----|-----|
| 元明粉 Glauber's Salt | g/L | 25   | 30    | 40  | 50  | 70  | 100 |
| 纯碱 Soda Ssh        | g/L | 5    | 8     | 12  | 15  | 20  | 20  |

高温移染/中温染色 Migration / Warm Dyeing 80 / 60°C

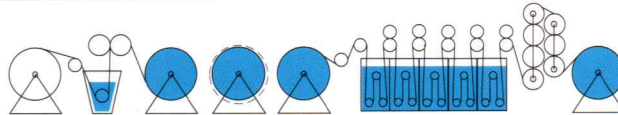


浸染后清洗 Exhaustion Washing off



## 冷轧堆工艺

Cold-Pad-Batch Process



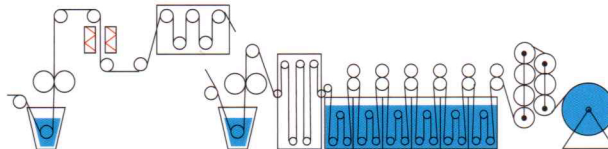
浸轧 Padding → 25°C 堆置 Batching 8-12 hrs → 后清洗 Washing Off

| 染液 Dye liquor, 20-25°C |     |                           |
|------------------------|-----|---------------------------|
| X                      | g/L | 活性染料 Reactive Dye         |
| 2-4                    | g/L | 润湿剂 Wetting Agent         |
| 100                    | g/L | 尿素 Urea, 需要时 If Necessary |

| 碱用量 Alkali Dosage, 20-25°C |     |    |    |    |    |     |
|----------------------------|-----|----|----|----|----|-----|
| 染料 Dyestuff                | g/L | 20 | 40 | 60 | 80 | 100 |
| 纯碱 Soda Ash                | g/L | 30 |    |    |    |     |
| 烧碱 Caustic Soda            | g/L | 3  | 4  | 5  | 6  | 8   |

## 轧干轧蒸工艺

Pad-Dry-Pad-Steam Process



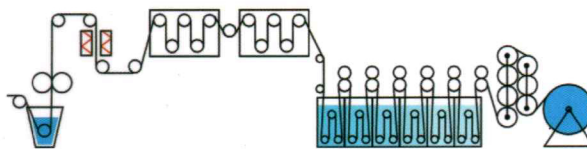
浸染染液 Padding Dye Liquor → 红外预烘 IR Predrying → 热风 Hot air 100-130°C → 浸轧碱液 Padding Chemicals  
→ 饱和汽蒸 Saturated steam 45-90 sec. → 后清洗 Washing Off

| 染液 Dye liquor, 轧余率 PU50-70% |     |                           |
|-----------------------------|-----|---------------------------|
| X                           | g/L | 活性染料 Reactive Dye         |
| 2-4                         | g/L | 润湿剂 Wetting Agent         |
| 5-10                        | g/L | 防泳移剂 Anti-migration Agent |
| 5-10                        | g/L | 防染盐 Resist Salt           |

| 固色碱Chemicals , 轧余率PU70-80% |     |     |       |     |
|----------------------------|-----|-----|-------|-----|
| 染料 Dyestuff                | g/L | <20 | 20-30 | >30 |
| 氯化钠Common Salt             | g/L | 250 |       |     |
| 纯碱Soda Ash                 | g/L | 20  |       |     |
| 烧碱Caustic Soda             | g/L | 3   | 4     | 5   |

## 轧烘焙工艺

Pad-Dry-Thermofix Process



浸染 Padding, PU50-60% → 干燥 Drying 110-130°C → 焙烘 Thermofix 140°C 60sec → 后清洗 Washing Off

|                           |     |       |       |       |
|---------------------------|-----|-------|-------|-------|
| 染料 Dyestuff               | g/L | <10   | 10-30 | 30-60 |
| 尿素 Urea                   | g/L | 20    | 20-50 | 50    |
| 润湿剂 Wetting Agent         | g/L | 2-5   |       |       |
| 抗泳移剂 Anti-Migration Agent | g/L | 10-20 |       |       |
| 纯碱 Soda Ash               | g/L | 10    | 15    | 20    |



COLOR ROOT

### 湖北丽源科技股份有限公司

湖北省松滋市陈店镇丽源大道一号 434209

HUBEI COLOR ROOT TECHNOLOGY CO.,LTD

No.1 Liyuan Avenue, Chendian Town, Songzi City, Hubei Province,  
434209 China

Tel: +86 716 6797888

Fax: +86 716 6797339

Http://www.colroot.com

### 上海俪源科技有限公司

上海松江漕河泾高新技术园莘砖公路258号39幢1B-3B楼 201612

SHANGHAI COLOR ROOT TECHNOLOGY CO.,LTD

1B/F-3B/F, Building 39, No.258, Xinzhuang Road, Caohejing Hi-Tech Park, Songjiang,  
Shanghai, 201612 China

Tel: +86 21-37768000

Fax: +86 21-37761922

### 武汉分公司

湖北省武汉市江汉区淮海路泛海国际SoHo城7单元502室

WUHAN OFFICE

Add: Room 502, Unit 7, Oceanwide International SOHO Town, Huaihai  
Road, Jiangnan District, Wuhan City, Hubei Province, 430000 China

MB: +86 186 7168 5565

### 孟加拉分公司

BANGLADESH OFFICE

Add: House#11(4th Floor), Road#07, Sector#12, Uttara, Dhaka-1230, Bangladesh

MB: (CN)+86 155 7204 4730

(BD)+88 01708539419

### 孟加拉代理

BANGLADESH AGENT

M/s: D and D Chemicals

Add: House#11, 5th Floor, Road 7, Sector-12, Uttara, Dhaka-1230,  
Bangladesh

TEL: +88 02 5508743

+88 01713 027506

### 青岛分公司

山东省青岛市即墨区长江二路369号楼1单元501室

QINGDAO OFFICE

Add: Room 501, Unit 1 Building 369, Changjiang Road, Jimo District, Qingdao City,  
Shandong Province, China

MB: +86 139 8671 5223

### 佛山分公司

佛山市南海区小塘工业大道新境工业区罗岗

FOSHAN OFFICE

Add: Luogang, New Frontier Industrial Zone, Xiaotang Industrial Avenue,  
Nanhai District, Foshan, China

MB: +86 186 2729 7959

### 绍兴分公司

浙江省绍兴市袍江新区锦江半岛小区3幢102室

SHAOXING OFFICE

Add: Room 102, Building 3, Jinjiang Peninsula Community, Paojiang New District,  
Shaoxing, Zhejiang, 312000. China

MB: +86 158 2770 9388

### 无锡分公司

江苏省无锡市锡山区东亭路华夏之春小区2-2幢501室

WUXI OFFICE

Add: Room 501, Building 2-2, Huaxiazhi Chun Estate, Dongting Road, Xishan District,  
Wuxi City, Jiangsu, 214107 China

MB: +86 186 2729 0997



Disclaimer: The testing data in this pattern card is obtained from our company Lab. We will not overtake any risk caused by this. Every factory has difference in index data because of different process, dyeing material, water, chemicals etc. as such factors, the data is just for your reference. Your lab experiment is highly suggested before initiating mass-production.

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