

**Lonsen**  
龙盛染料

**LONSPERSE**  
龙盛分散染料系列



分散高牢度NP-WECT系列  
Lonsperse NP-WECT Series

**经济型 高牢度**

Economical High Fastness

## Economical High Fastness 经济型高水洗牢度

### 龙盛分散高牢度NP-WECT系列 Lonsperse NP-WECT Series

随着纺织品市场的不断发展，环保压力的日趋严格，消费者对纺织品应用范围、品质、环保的要求也越来越高，主要有以下几点：

1. 纺织品各项牢度的要求增加；
2. 纺织品生态安全日趋重要；
3. 印染企业生产成本不断增加，面临产品升级优化；
4. 节能减排、生态环保压力大；
5. 纺织品材料的功能化、应用范围的细分化；
6. 小批量多品种，高要求。

With the development of textile market and the ever strict environmental pressure, consumers are having more requirements to application scope, quality, environmental performance of textiles, following are the main points:

- Higher demands of color fastness;
- The eco-safety of textile is increasingly crucial;
- Frequent increase of production cost, products' optimization and promotion;
- Great pressure of eco-environment protection;
- Higher functionality and more detailed application scope of textile;
- Low volume and multi product, high demands.



常规分散染料对氨纶及棉纤维有一定的亲和力，对氨纶纤维及棉纤维污染严重；染色后整理加工（如热定型及防水整理等）及服用过程中，氨纶及棉纤维上沾染的分散染料容易从纤维中迁移出来，影响纺织品的湿处理色牢度。因此，细旦涤纶、氨纶弹性织物采用常规分散染料难以获得高耐洗色牢度。浙江龙盛集团根据市场现有分散高水洗系列染料的应用；结合印染企业对成本、品质、环保、牢度等的要求，开发推出分散经济型高水洗牢度NP-WECT系列染料。

Conventional disperse dyes have a certain affinity for spandex and cotton fibers, which can cause color stain. During wear or after finishing process (e.g.: heating setting, water proof finish, etc), disperse dyes stained on spandex or cotton can migrate and color fastness of the textiles can be affected. Therefore, apply conventional disperse dyes on fine denier polyester or spandex will not achieve high color fastness. On the basis of existing high fastness disperse dyes in dye market, aim on the requirements of low cost, high quality, high fastness and eco-friendly that all dyeing houses desire, Zhejiang Longsheng Group developed a collection of high fastness disperse dyes named NP-WECT Series which is also economical.

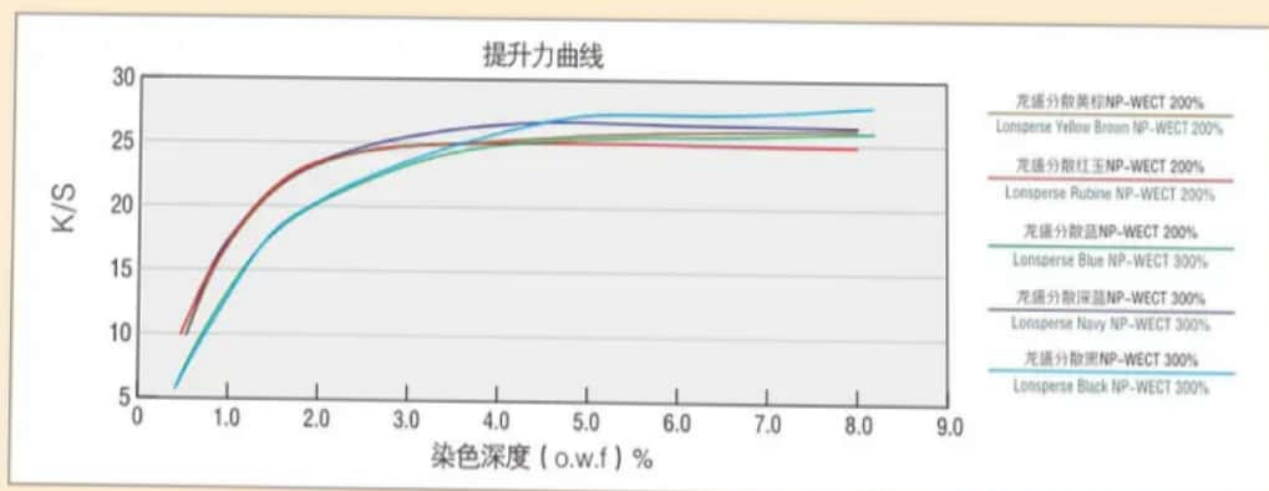


## 染料性能 Properties

1. 经济型高力份，具有极佳的染深性，超细旦涤纶纤维深浓色系的最佳方案；
  2. 优异的热迁移牢度和水洗沾色牢度；
  3. 染料浮色热碱易水解，还原清洗残液不回沾，具有极佳的撞白牢度；
  4. 氨纶、棉组分沾色轻微，经还原清洗后易去除；
  5. 具有极佳的升华牢度；极佳的上色同步性；
  6. 后整理功能性助剂整理后，具有极佳的耐热迁移牢度；
  7. 具有完美的重现性，使用操作方便，工艺条件宽泛。
- Economical dyes, high strength, good deep dyeing property, best solution for super fine denier polyester fiber with deep color;
  - Excellent thermal migration fastness and washing fastness;
  - Flooding can be easily hydrolyzed by hot alkaline;
  - Less color staining on spandex and cotton, which can be easily removed through reduction cleaning;
  - Great sublimation fastness; Great color synchronism;
  - Excellent thermal migration fastness after aftertreatment;
  - Good reproducibility and process tolerance, easy to operate.

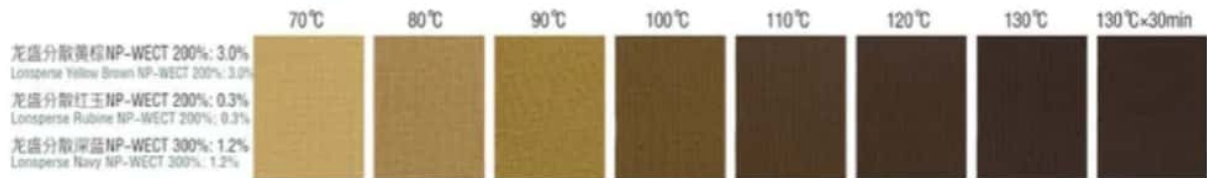
染料 Names of Dyes	色样 Sample	染色 深度 o.w.f Depth	日晒 牢度 1/1 SD Light	类型 Type	升华 Sublimation		水洗 Washing		耐氯漂 Chlorinated Water	耐汗渍 Perspiration		pH 范围
					棉沾 CO	涤沾 PES	醋纤 CA	尼龙 PA		汗酸 Acid	汗碱 Alkali	
龙盛分散黄棕NP-WECT 200% Lonsperse Yellow Brown NP-WECT 200%		3.0%	5-6	S	4-5	4	4-5	4	4-5	4-5	4	3.5-5.0
龙盛分散红玉NP-WECT 200% Lonsperse Rubine NP-WECT 200%		3.0%	4-5	S	4-5	4	4	3-4	4-5	4-5	4	3.5-5.0
龙盛分散蓝NP-WECT 200% Lonsperse Blue NP-WECT 200%		2.0%	4-5	S	4-5	3-4	4	3-4	4-5	4-5	4	4.0-6.5
龙盛分散深蓝NP-WECT 300% Lonsperse Navy NP-WECT 300%		4.0%	4-5	S	4	4	4-5	3-4	4-5	4-5	4	3.5-5.0
龙盛分散黑NP-WECT 300% Lonsperse Black NP-WECT 300%		6.0%	4-5	S	4	4	4	3-4	4-5	4-5	4	3.5-5.0

## 染料提升力 Build-up



## 大生产案例1 Case 1

面料: 涤氨针织弹力面料 (氨纶含量8%)  
Polyester/spandex knitting fabric (spandex 8%)

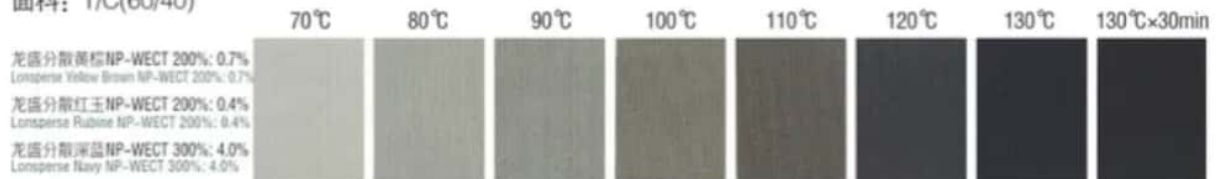


牢度测试 Color Fastness



## 大生产案例2 Case 2

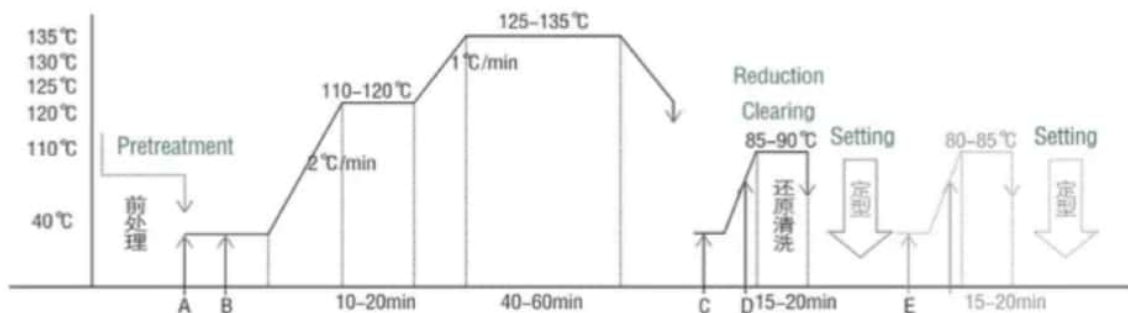
面料: T/C(60/40)



牢度测试 Color Fastness



## 推荐染色工艺 Recommended Dyeing Process



- |                            |                    |  |
|----------------------------|--------------------|--|
| A: 冰醋酸或者冰醋酸+醋酸钠<br>匀染剂、扩散剂 | pH 4-5;<br>1-3g/L; | Glacial acetic acid ( glacial acetic acid + sodium acetate )<br>Leveling agent, dispersing agent |
| B: 染料                      | x%(o.w.f)          | Dye  |
| C: 烧碱                      | 1-3g/L             | Caustic soda   |
| D: 保险粉                     | 1-3g/L             | Sodium hydrosulfite  |
| E: 根据牢度要求, 可增加一道还原清洗       |                    | Reduction cleaning if needed   |

## 温馨提示 Reminder

### 1、合理的前处理:

- ① 设置预定型温度和车速要求一致, 避免由此带来的上染率的差异, 也可有效去除织物上的部分油剂;
- ② 有效去除由于氨纶纤维纺丝过程中的纺丝——硅油类在前处理中必须去除干净, 避免由此造成的染色织物色牢度下降;

### 2、染色过程控制:

- ① 染色水质中铜、铁、氯根离子存在极易带来消色、色变等问题, 可通过加入适量高温整合分散剂来避免由此产生的大小样色差、缸差等问题;
- ② 染色过程中, 染色升温速率等工艺条件的设计根据染色织物的物性进行合理设计, 以达到染色理想状态和效果;
- ③ 筒子纱染色过程, 对于细旦化高弹涤纶纤维, 建议加入1-2g/L龙盛高效扩散剂LF-D;
- ④ 禁用回水染色;
- ⑤ 该组染料对pH值较敏感, 需严格控制pH范围(3-5), 建议使用缓冲溶剂;
- ⑥ 该组染料上色较慢, 在不损伤织物的前提下, 染色温度设置应尽量高一点, 同时要求温控精准。

### 3、后整理过程控制:

- ① 染色完成后, 推荐: 1-3g/l烧碱+2-4g/l保险粉( $\text{NaOH} + \text{Na}_2\text{S}_2\text{O}_4$ ), 80-85℃还原清洗, 可有效去除浮色;
- ② 要求各项湿牢度高的织物, 还原清洗后过酸中和, 定型未达到各项湿牢度的产品, 建议采用两次还原清洗, 两次定型工艺(定型温度: 一高一低); 以获得极佳的色牢度;
- ③ 后整理功能性助剂对色牢度的影响, 建议在充分的评估后使用, 以免造成成品热迁移牢度、储存等牢度的变化。

#### 1.Pretreatment

- ① The temperature of pre-setting and the speed on dyeing machine should be well matched, which can effectively reduce the difference in dyeing rate;
- ② Remove the spinning oil (silicone oil) which is introduced in the spinning of spandex, to avoid color fastness decrease.

#### 2.Dyeing Process Control

- ① Add a moderate amount of high temperature chelating dispersant to avoid dyelot chromatism or color difference between lab samples and bulk samples, which can be easily caused by Cu, Fe, Cl ion that exist in dyeing water;
- ② The dyeing process condition, like heating rate, need to be rationally designed according to the physical properties of dyed textiles to achieve the desired dyeing effect;
- ③ In the process of cone dyeing, especially for fine denier polyester, we recommend you to add our dispersing agent LF-D (1-2g/L);
- ④ Backwater is forbidden to use in dyeing process;
- ⑤ This series of dyes is very sensitive to pH, so we need strictly control the pH value of the dyeing solution, we suggest you to use buffer;
- ⑥ Because of the slow dyeing rate, we suggest you to use higher dyeing temperature without damaging the textiles, but the temperature need to be precisely controlled.

#### 3.Aftertreatment Control

- ① After dyeing, reduction cleaning under 80-85℃, using 1-3g/l caustic soda + 2-4g/l sodium hydrosulfite ( $\text{NaOH} + \text{Na}_2\text{S}_2\text{O}_4$ ) is recommended;
- ② Textiles with high fastness need acid neutralization after reduction cleaning, textiles fail to meet the demand of high fastness, need twice reduction cleaning and setting (setting temp.: high temp. once, low temp. once)
- ③ We suggest you to fully evaluate the effects of functional auxiliaries on color fastness before use, in order to avoid the change of thermal migration and storage fastness.



浙江龙盛集团股份有限公司  
ZHEJIANG LONSEN GROUP CO.,LTD.

此资料所提供的信息和数据是建立在我们现有的知识和经验的基础之上，  
不同的客户会有不同的生产工艺及应用方法。  
在使用该产品前，请充分做好实验工作，  
该产品质量保证符合贵公司的一般使用条件。

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



地址：中国浙江省绍兴市上虞区道墟镇 邮编：312368  
Daoxu Town, Shaoxing City, Shangyu District, Zhejiang Province,  
P.R. China P.C:312368  
电话/TEL: 0086-575-82042778 82042779  
传真/FAX: 0086-575-82042878  
**销售热线/Sales Hotline: 0086-575-82042136**  
**服务热线/Service Hotline: 0086-575-82042243**

网址 [www.longsheng.com](http://www.longsheng.com)