Cationic Blue X-BL





Cationic blue X-BL is a kind of cationic dye used for coloring acrylic fiber, cotton, silk coloration.

Cationic blue X-BL is a blue powder, which can very easily dissolve in water. The dyed acrylic fabric is blue.

With advanced production equipment, mature manufacturing technology, XCWY has been the leader for the cationic dyes in China.

Especially in the situation that China government is strengthening the environment protection policy constantly, we are introducing advanced environmental protection equipment and expand our cationic dyes production.





Cationic Blue X-BL Specification

» Product Name: Cationic Blue X-BL

» Type: Cationic dyes

» Color Index Name: Basic blue 159

» Usage: Acrylic fabric dyestuff, Paint dyestuff, Ink dyestuff

Cationic Blue X-BL Physical Properties

Basic Information	
Product Name	Cationic Blue X-BL
Colour Index	C.I. Basic blue 159
Specification	
Shade	Similar With Standard
Strength	250%
Appearance	Blue Uniform Powder
Properties	Very soluble in water and alcohol

Influencing factors of cationic blue dyes

Cationic dyes have a high affinity for acrylic fibers, which is easy to cause dyeing irregularities due to their fast adsorption and slow diffusion. Once the dyeing irregularities occur, it is difficult to correct them by prolonging the dyeing time. In order to obtain a uniform dyeing result, the dyeing rate should be appropriately reduced when using cationic dyes. In addition to the types of acrylic fibers, the factors affecting the dyeing rate of cationic dyes are as follows:

1. Temperature

Temperature is an important factor in leveling control. When acrylic fibers are dyed with cationic dyes, the dyeing rate of dyes increases rapidly when the dyeing temperature reaches the glass transition temperature of the fibers (75-85 ?). Therefore, when the dyeing temperature reaches the glass transition temperature of the fibers, the temperature should be increased slowly, generally increasing by 1 ? every 2-4 minutes. It can also be dyed at 85-90 ? for a period of time and then continue to rise to boiling temperature.

2. PH Value of Dyeing Bath

Adding acid in dyeing bath can inhibit the dissociation of acidic groups in acrylic fibers, reduce the number of anionic groups on the fibers, reduce the Coulomb attraction between dyes and fibers, and reduce the dyeing rate. The effect of pH value on dyeing rate was more significant for acrylic fibers containing carboxylic acid group, while the effect of pH value of dyeing bath on dyeing rate of acrylic fibers containing sulfonic acid group was less significant. The pH value of dyeing bath should be reasonably controlled during dyeing. Cationic dyes are generally not alkali-resistant, and the optimal pH value for dyeing is 4-4.5. The pH value of dyeing bath is higher when dyeing dark and lower when dyeing light. The pH value of dyeing bath is generally regulated by acetic acid. Acetic acid can not only reduce the pH value of dyeing bath, but also improve the solubility of dyes. Adding sodium acetate in the dyeing bath can stabilize the pH value of the dyeing bath within the required range.

3. Electrolyte

Adding electrolytes, such as sodium bicarbonate and salt to the dyeing bath can reduce the dyeing rate of cationic dyes and has a slow dyeing effect. The electrolyte has no obvious slow dyeing effect on

dyes with K value from 1 to 1.5, but has slow dyeing effect on dyes with K value from 3 to 5. The slow dyeing effect of electrolyte decreases with the increase of dyeing temperature. When dyeing light colour, the amount o f electrolyte can be higher, about 5%-10%(o.w.f.), but not when dyeing dark colour.

4. Retarding agent

In cationic dyeing, retardants are often added to reduce the uptake rate and achieve a uniform dyeing effect.



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Product link：https://www.xcwydyes.com/cationic-blue-x-bl.html