

ZC - DYE FIXING AGENT 50

Cationic Fixing Agent for the improvement of Wet Fastness of Dyeing

Appearance

Colourless to light yellow clear liquid.

Chemical nature

Amide Condensate water soluble product.

Ionic nature Cationic

Characteristics

1. Soluble in water proportions to form

clear transparent foaming solution.

2. pH of 1% solution in distilled water : 5.0 - 6.5

3. Compatibility : Good with cation active and nonion

auxiliaries.

Not compatible with anion-active

auxiliaries.

4. Stability to acids : Stable

5. Stability to alkalies : Decomposes

6. Stability to storage : Excellent.

Applications:

a. Increasing the wet fastness of direct dyes

Dyeing or prints made with direct colours often show a tendency to bleed in water. This puts serious limitation to their usefulness. ZC - DYE FIXING AGENT 50 is very effective in preventing the bleeding.

Note : These suggestions and information are offered in good faith but without gurarantee as conditions and methods of use are beyond our control, Hence it is desirable for the prospective customer that they determine the suitability of the products and suggestions before commercial usage.

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Applications (Contd.)

The bleeding of direct colours on contact with water is due to the fact that the absorption of the dyestuff on the cellulose is reversible, so that as soon as the dyed material comes in contact with water, the dissipation of the dye molecule starts. ZC - DYE FIXING AGENT 50, which is a cationic surface active agent, unites with the dye anion, producing a more complex molecule which is insoluble or sparingly soluble. The resulting salt of the dyestuff anion and ZC - DYE FIXING AGENT 50 does not hydrolyse in contact with water and is thus 'fixed' on the fabric. Treatment of goods dyed or printed with direct colours with a dilute solution of ZC - DYE FIXING AGENT 50' has the following effects:

- 1. Treatment with ZC DYE FIXING AGENT 50 increases the fastness to water. perspiration and to wet finishing of direct dyed or printed colours on cotton. rayon. spun rayon and silk.
- 2. Treatment with ZC DYE FIXING AGENT 50 is effective with all direct colours.
- 3. Treatment with ZC DYE FIXING AGENT 50 does not change the feel or handle of the goods.
- 4. Treatment with ZC DYE FIXING AGENT 50 might gives minimul change in the shades of dyeings.
- 5. Treatment with ZC DYE FIXING AGENT 50 might have a slight effect on light fastness of some colours.

Fields of application:-

- 1. After treatment of padded direct colours or colours dyed on the fibre machine.
- 2. After treatment of direct colour dyed grounds for discharge printings, to prevent bleeding into the white discharge.
- 3. After treatment of mixed fibre fabrics with strips of acetate, to prevent bleeding of the direct colours dyed on the rayon into the acetate threads when the wet goods are piled up.
- 4. After treatment of direct colour dyed warps to prevent bleeding of the colour into the slashing bath.
- 5. Increasing the water fastness of fabrics for umbrella manufacture.

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b. Increasing the wet fastness of Reactive Dyes:

The wash fastness of reactive dyes is usually extremely good. However, bleeding of the colour is sometimes observed as the loosely held dye goes away. ZC - DYE FIXING AGENT 50 effectively fixes the loose dye and prevents the possible bleeding.

Treatment with ZC - DYE FIXING AGENT 50 for fixing the reactive dyes is extremely useful under the following circumstances:-

1. When the final washing off is not as thorough as required.

The **final** washing off of goods dyed with reactive dyes has to be very thorough for the following reasons:

- a. The exhaustion of the reactive dyes from the dyebath is often not good and much of the dyestuff is usually retained in the dyeing bath.
- b. Reactive dyes hydrolyses in water. The hydrolysed dye which does not enter into the chemical combination is substantive towards cellulose and does not possess good wet fastness.
- c. When a thorough washing off is not given the loosely held dyestuff and hydrolysed dye start bleeding in contact with water.
- 2. When it is necessary to safeguard the dyeing against marking off during storage.

When the goods dyed with reactive dyes are stored under humid or slightly acid conditions, some of the fixed dyestuff can become detached from the cellulose and 'mark off' on adjacent goods.

3. When the dyeing is in medium to full shades, where the highest fastness to water and perspiration are demanded.

Suagestions for use

The dyed material is dipped in 0.5 to 1 gm/lt of solution of ZC - DYE FIXING AGENT 50 at room temperature for 10-15 minutes at a bath ratio depending on the method of application.

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Precautions

The effect of ZC - DYE FIXING AGENT 50 decreases in alkaline bath. It is adviseable to keep the ZC - DYE FIXING AGENT 50 solution slightly acidic before and during use by addition of acetic acid.

The information given above is on the basis of our best knowledge and experience and is for your advice and guidance. However, no warranty is given nor freedom from patent or other rights inferred.

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