Rendezvous with Basic Dyes â€“ Known for Providing Bright Colors to Textiles

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Article published on July 20th 2012 | Business

Whenever the discussion of Basic dyes starts, the very first sentence is often, â€œthey are colored aromatic compounds.â€• These dyes are water-soluble cationic dyes that are primarily applied to acrylic fibres, but find some usage for silk and wool as well. These dyes are highly praised for their ability to produce brighter colors on textile. There are extremely bright dyes, which are commonly synthetic.

Basic dyes are named so because they are organic bases or salts, and are referred to as cationic dyes because in solution the dye molecules ionizes, causing its colored element to turn into an action of positively charged radical.

Properties:

The amazing properties of cationic dyes are intensity and brilliance of their colors

Many of these dyes are meagrely soluble in water

These dyes are readily soluble in mentholated spirit and alcohol

One important property of these dyes is that it can combine with tannic acid to create an insoluble compound provided mineral acid is not present.

When treated with a reducing agent, most of these dyes are converted into their colors less leuco compounds, which can return to their original shade via oxidizing agents or exposure to air.

The wet fastness of cationic dyes on protein fibres can be enhanced by back tanning.

The brightness and quality of colors obtained with these dyes are amazing and unparallel

It is advised not to use these dyes on cotton owing to the non-plainer structure of cotton and its incompetency for sufficient affinity.

Uses of cationic dyes:

The dyes are utilized for wooden goods when specifically bright colors are needed that cannot be availed with acid dyes

They are used for making typewriter ribbons, inks and dyeing leather.

Basic dye does not possess affinity for cellulosic fibres like cotton. However, bright shades are required on cotton that can only be achieved by using cationic dyes.

They are applied to silk, modified acrylic fibres and wool

They are used for coloring dry flowers, cut flowers, coir and jute.

Are used for coloration of paper

Modified Basic Dyes

The all-new improvised dyes, based on an identical chemistry of cationic dyes, display a bit lengthier molecular structures as compared to conventional cationic dyes, and results in substantially improved properties. Their key benefits over conventional cationic dyes are:

Outstanding substantivity

Covers all fibres

Better Light fastness

Clear backwaters

In case, the reason behind the success of basic dye is assessed, it would be noted that the positively charged cations of these dyes becomes attracted towards the negatively charged anions in the acrylic fibre. Some major examples of cationic dyes are basic fuchsia safranin, crystal violet and methylene blue etc.

Article Source:
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Article Keywords:
basic dye, basic dyes

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