

**The new face of Astrazon®**  
All-purpose liquid dyes for cationic dyeable fibres



# Astrazon from DyStar – Market leading liquid cationic dyes

Astrazon dyes position DyStar as the market leader in cationic dyeing. We market more than 36 shades as powder or liquid dyes, so we can meet the most exacting quality and ecological requirements. Our team of experts can help customers optimise their dyeing processes to make sure they get the best out of our dyes.

More and more customers are recognising Astrazon liquid dyes as an attractive alternative to powder dyes. Liquid dyes enable them to use fully automated liquid dispensing systems for dyes, auxiliaries and chemicals. And that is important in today's cost-driven industry.

Astrazon dyes are manufactured to consistently high quality standards worldwide. The liquid dyes offer the following benefits in the coloration of cationic dyeable fibres.

## **Controlled Coloration®:** **Reliable dyeing processes for top productivity**

- Excellent combinability within the range
- Very good stability in solution
- Top pH stability and stability to steaming
- Suitable for use on dosing systems
- Long shelf life

## **Color Confidence®:** **Top colour fastness to meet the rising demands of retailers and consumers**

- Wide range of shades
- Top wet fastness and light fastness properties
- Conformance to high ecological standards worldwide
- Highest quality specifications worldwide



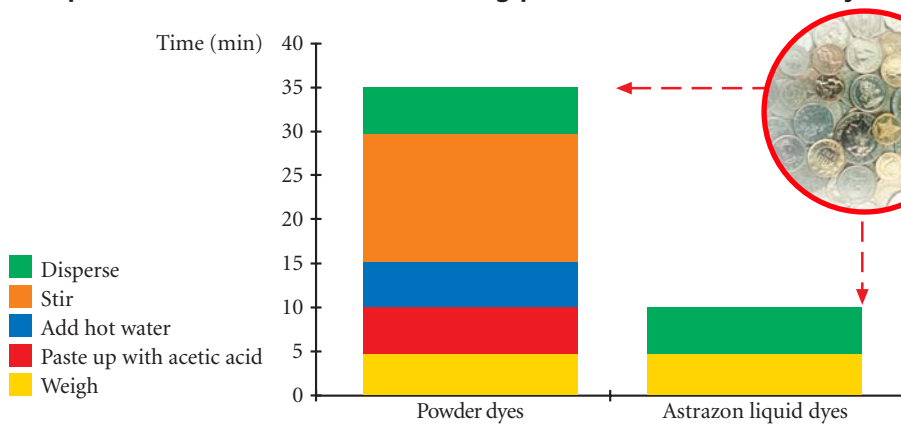
# Astrazon liquid dyes – Benefits and properties

## ✓ The world's most extensive range of liquid dyes

Astrazon liquid dyes from DyStar cover the entire colour spectrum so you can match most fashion shades. The Astrazon liquid dye range comprises 24 dyes for all types of acrylic fibres, cationic dyeable PES and PA fibres, m-aramide fibres and non-textile applications. As well as the standard ternary combination, we market special combinations to meet especially demanding pre-mix stability and fastness requirements.

## ✓ Highly economical dye range

### Comparison of the common dissolving procedures for cationic dyes



Save time and money

## ✓ Very good stability in solution

Dye solutions have to remain stable in solution for several days to meet long production cycles. Astrazon dyes are miscible with each other in any ratio and with water in any ratio. There is no danger of precipitation during normal processing.

## ✓ Stability of concentrated dye solutions (pre-mixtures)

When dyeing large batches, dyes for medium to dark shades are usually mixed in concentrated form without adding water. This eliminates the need for large dilution tanks. The concentrated dye mixtures do not precipitate during processing, allowing problem-free application.

## ✓ Dyes with low chloride content

In the presence of acetic acid, dyes containing chloride can corrode storage tanks, pipes and dyeing units. The Astrazon liquid dyes have a low chloride content, so corrosion is unlikely to be a problem.

## ✓ Astrazon dyes meet the highest standards of occupational health and safety

Using liquid dyes eliminates the problem of hazardous dust. Dosing can be fully automated so operatives do not have to handle the dyes. Moreover, a systematic environmental testing programme rules out problems with hazardous substances.



# Astrazon liquid dyes – Areas of application

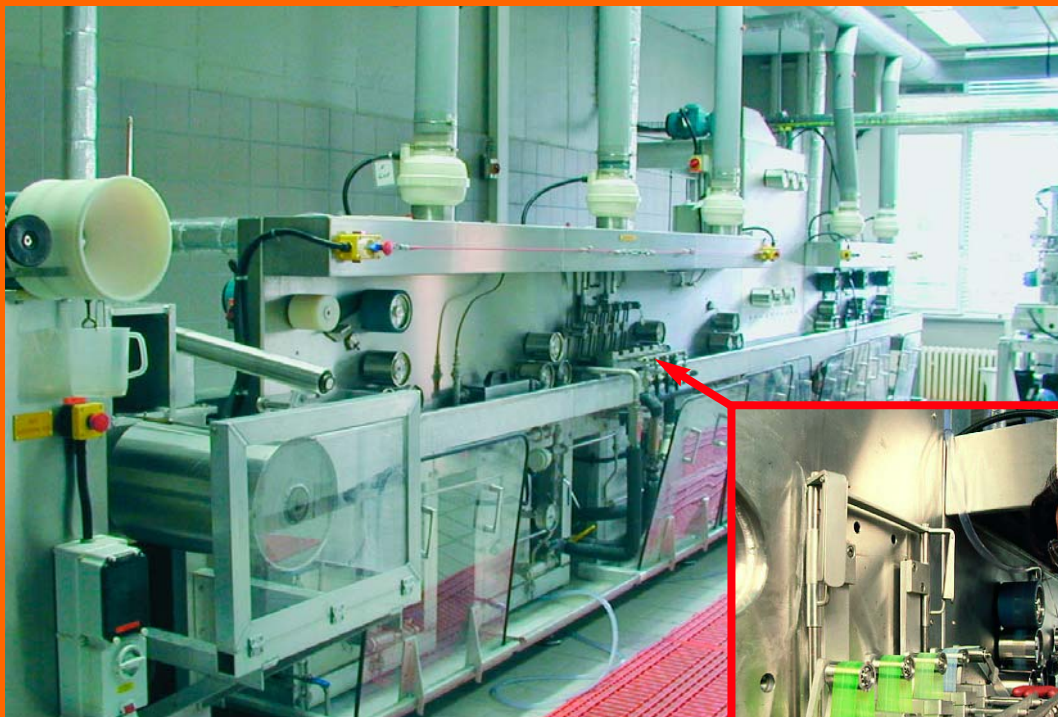
## Astrazon liquid dyes are suitable for:

- Use with automated dosing systems
- Gel dyeing
- Conventional exhaust dyeing
- Pad-steam dyeing
- Textile printing

## The application in gel dyeing

One of the main applications of Astrazon liquid dyes is in gel dyeing - the coloration of acrylic fibres as a gel during spinning. The filament is dyed while it is in a swollen, aqueous amorphous state. The rate of diffusion is extremely high and is determined mainly by the temperature and concentration of the Astrazon dye.

When gel dyeing was introduced, DyStar developed a range of liquid dyes specifically to meet the requirements of this process. We have built our own unique pilot gel dyeing plant which provides major insights into the gel dyeing process, enabling us to market tailor-made Astrazon liquid dyes, backed up by technical expertise. Our pilot plant can simulate virtually all common industrial wet spinning processes.



Gel dyeing pilot plant in Frankfurt



Our products and services help customers worldwide reduce costs, shorten lead times and meet quality specifications. DyStar – Shaping success.



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