Pad-spray-steam dyeing of VAT with HydroBlue® 90 and RotaSpray technology

HydroBlue® 90 in combination with disruptive RotaSpray wet on wet spray dyeing technology results in higher fixation yield, less materials and reduced salt load in waste water.
The product qualities of Hydrosulfite and VAT dyes are important factors for manufacturers to fulfil requirements for ECO standards, shade continuity as well as cost efficiency.

Deviations in VAT dyeing are difficult to detect until the very last moment after steaming, oxidizing and soaping. This means that dyeing quality largely depends on the accuracy of application process, quality of the Hydrosulfite reducing agent and VAT dyes and auxilliaries used.

BASF is currently the only company in the world to produce HydroBlue® 90, a Hydrosulfite in an improved formate process. This has helped to achieve the highest consistent product quality and stability yet available.

RotaSpray has developed a patented spray dyeing technology for fabric as well as for warp yarn, a real disruptive technique.

BASF and RotaSpray together significantly reduce the input of dyeing chemicals. In addition, around 1 kWh per kg fabric is saved due to the fact that an intermediate drying is eliminated in this sustainable pad-spray-steam process. This also results in 10–15% higher fixation yield, short steaming times (20–30 seconds) and significantly reduced investment costs. A real benefit for both the manufacturer and the climate.

Cost efficient continuous dyeing process – no compromise on quality

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**Spray application for better dyeing solutions**

Spray application by use of fast rotating disks is a cost minimizing, resource-saving and low-maintenance technology for your continuous dyeing processes. Used for fabric VAT dyeing, the dye molecule is padded and the HydroBlue® 90 / Caustic Soda mixture is sprayed wet on wet onto the fabric by forced application and contact-free. Steaming, oxidation and soaping are the following steps. For warp yarn dyeing and special ring dyeing effects the wet on wet process can be turned around. HydroBlue® / Caustic Soda mixture is padded and the VAT dye is sprayed wet on wet and fixed on the steamer.

**HydroBlue® 90 will optimize your value chain**

Sodium dithionite is a reducing agent for the VAT and yarn dyeing process with the Indigo before denim fabric is made. Unique to BASF, the stable sodium dithionite content of HydroBlue® 90 products ensures an even steadier and more consistent dyeing effect on the yarn and fabric to minimize off-specification products along the value chain. It increases your efficiency, the safety of your workers, the quality of your products, and the satisfaction of your customers.

Due to its long-term stable, odorless, and dustfree dithionite content of 90%, it offers unparalleled consistent dyeing quality, reliability, and efficiency, combined with safer handling.