Fibre To Fabric: The Rise Of Chemical Finishing

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In the textile industry, chemical finishing is a process used to protect textiles from stains, discoloration and damage from soiling. It shields the fabric from various environmental factors, and it can also be used to make the fabric softer, easier to clean and improve water repellent property. The chemicals used in this process help create a barrier between the fabric and soil that may cause staining, discoloration or damage.

Textile wet processing can be thought of having three stages, pretreatment (or preparation), coloration (dyeing or printing) and finishing. Finishing is the final step in the fabric manufacturing process, the last chance to provide the properties that customers will value. It is also called the beautification process of fabric. Finishing completes the fabric's performance and gives it special functional properties including the final 'touch'. Typically chemical finishing takes place after coloration (dyeing or printing) but before fabrics are made into garments or other textile articles. However, many chemical finishes can also be successfully applied to yarns or garments.

People's choices about the style, color, design, and fabric of the clothing have increased over time which has collectively push demand for chemical finishing from the textile industry. As a result, it has become increasingly standard for textiles and garments to be chemically processed. In recent years, there has been a growing trend towards 'high-tech' textile products. As the use of high performance textiles has grown, the need for chemical finishes to provide the fabric properties required in these special applications has grown accordingly.

A wide range of chemicals are used to perform different types of finishing on textiles. To protect the products and the environment, finishing chemicals must be used under strict environmental regulations and adequately treated and disposed responsibly. Thankfully, innovative textile specialty chemical manufacturers are developing sustainable, new-age eco-friendly chemicals. Innovative and eco-friendly finishing chemicals would eventually replace traditional chemicals. Chemical finishing has always been an important component of textile processing, but in recent years the trend to 'high tech' products has increased the interest and use of chemical finishes. As the use of high performance textiles has grown, the need for chemical finishes to provide the fabric properties required in these special applications has grown accordingly.

Chemical finishing has various applications in textiles and offers significant benefits. Furthermore, innovative, finishing chemicals are also considered cheap and eco-friendly. Owing to such substantial benefits, finishing chemicals are expected to remain popular in the foreseeable future, further advancing this segment's growth.

Most of the finishing chemicals at Cosmo Speciality Chemicals have been developed to solve problems with unfinished textiles or to expand their usefulness. Examples of such problems are insufficient fabric hand, inadequate appearance after washing without ironing, high absorbency of water, oil and soil, flammability, and pilling, slipping or static problems during production and usage. It has been shown how these problems and restrictions can be solved and overcome with chemical finishing. New ideas and stimulation from finish producers result in the development of finishes that enable high performance and meet new challenges. ■

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