

Utilization of cotton yarn system (Ring Spinning) in producing Fancy Yarn of blend cotton with poly acrylic

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Abstract:

Since the textile industry is one of the competitive industries that depend on innovative production, at the best possible quality, and reducing costs until competition continues and goods are sold more. So the consideration was to reduce cost and benefit in the theory of capillary migration and the difference in the theory of capillary migration as interference or change in the location of capillaries through the possibility of producing a thread on the spinning machine of acrylic and cotton twins in different proportions, and the final product has the competitive ability that makes it the preferred product of the consumer ,. It is necessary when performing mixing operations to choose the best mixtures to obtain good results in light of the required properties in the blended strands. From here, we can summarize the research problem in how to obtain the best thread specification as a result of mixing brominated cotton and acrylic. To achieve this goal, a number (9) samples were mixed between the cotton and acrylic materials in the cotton system during the final spinning stage, in order to obtain threads with new properties. It was implemented on machines for spinning (tioda) with an amendment in the thread path, and a methodology is adopted Research on the experimental and analytical approach and the link between both of them, the study has yielded some results, the most important of which are:-

1. The higher the thread count, the lower the tensile strength and the cutter load. When the cotton mixing ratio increases, the tensile strength and the cutter load increase.
2. The higher the tigrass (English numbering), the lower the percentage of elongation, and when the percentage of cotton in the thread formation increases, the elongation ratio decreases.
3. The higher the thread, the more the irregular the number of nodes and the notification .
4. The higher the proportion of cotton mixing in the resulting thread, the greater the uniformity and the fewer the number of nodes and the hair.

Keywords :

(Blend yarns - Fancy yarn - Migration of the fibers).