

Comparison Study of core spun yarns properties of some cellulosic fibers

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Abstract

The core spun yarns industry has developed greatly recently, and the core spun yarns with a flexible core are characterized by flexibility and ease of care, in addition to providing greater physiological comfort in use. The core spun yarns depend on the variables applied during the manufacturing stage. The production of the core spun yarns includes the presence of interspaces between the surface filaments and some of them, and the interspaces between the core filaments and the surface filaments, and these interspaces are what help the process of absorbing sweat, water and liquids and act as a thermal insulator and improve the functional properties and physiological comfort of fabrics clothes produced from it.

4 yarns, 2core spun yarns were produced (continuous polyester core spun yarn with number 50 denier and the cover was cotton and production of core spun yarn number 24/1 Ne + core spun yarns with a continuous polyester core of flat number 50 denier and the cover was viscose and production of core spun yarns number 24 /1 Ne) and 2 spun threads (100% cotton spun 24/1 Ne + 100% viscose spun 24/1 Ne) meaning 4 yarn samples. 2 core spun yarns and 2 spun yarns.

Laboratory tests were conducted to evaluate the functional properties of the produced yarns, and the cross-section of the spun and core spun yarns produced from cotton and viscose was photographed by microscope, and statistical analysis of the results was carried out. The thickness is greater than the thickness of the thread by 50%, the knot is 280%, and the water absorbency for both core spun yarns of cotton and viscose materials and spun yarns of cotton and viscose materials and compared to them.

key words:

Modified ring spinning –core spun yarns - spun yarns