

Study Of Knit Fabric Characteristics Made of Core Spun Yarns

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Abstract

The knitted fabrics industry in the world has developed greatly, especially in recent years, to the extent that it has become competitive with woven fabrics, and by studying the factors that lead to the prosperity of this industry, it becomes clear that they are many factors, the most important of which are the use of industrial fibers, and the development of the properties of natural threads, with the consumer acceptance of knitting products of all kinds on the basic of They are in line with fashion and give comfort in terms of flexibility and good suitability for the end use in addition to their cheap price due to the low costs of their production. The progress and development of the production of knitting machines led to the expansion of the use of knitted products, not only in the field of traditional clothing, but these fabrics entered into industrial uses, home furnishings and clothing Sports and medical, with special uses, and others, especially when using core spun yarns by combining the characteristics of different raw materials. It consists of two parts, the core and the sheath. The core is a continuous filament in the center covered with short filaments in the sheath. This is generally called the core spun yarn. 12 samples were produced (represented by 6 samples of raw weft knitting fabrics + 6 samples of prepared weft knitting fabrics), using a gouge jersey knitting circular machine (28), a rib gouge machine (18) and an interlock gouge machine (18) and using core spun yarns number used 1/24 English and core continuous polyester 50 denier wool/acrylic core in sheath cover 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 by conducting statistical analysis of the results, the number of raws / inch - number of wales / inch - spirality angle - stitch length - weight per square meter was measured Thickness - Bursting strength - permeability - length and width shrinkage - water absorbability capacity. It was concluded that the use of core spun yarns of wool and acrylic improved the functional properties of the weft knitted fabrics produced than others.

key words

Core Spun Yarns - Weft knitting fabrics - Jersey Structure - Rib Structure - Interlock Structure.