

Produce Fanc Yarn blender of cotton and acrylic fibers on ring spinning machine system to synthetic fibers

Prof. Afaf Faraj Abdel Muttalib

Professor at the Department of Spinning, Weaving and Knitting - Faculty of Applied Arts - Helwan University

afaffarag1999@yahoo.com

Assist. Prof. Dr. Ayman El-Sayed Ibrahim Ramadan

Assistant Professor, Department of Spinning, Weaving and Knitting - Applied Arts - Helwan University

aymaneisayd2664@yahoo.com

Researcher. Khalil Ibrahim Ibrahim

Spinning and weaving and knitting engineer at El Nasr Spinning and Weaving Company

khalelibrahim632@gmail.com

Abstract:

The fibers are the basic units for the formation of yarns and textiles, as the properties of fibers are reflected in a large degree, which makes studying the properties of fibers one of the basic necessities in the textile industry. And the study of textile filaments gives the different information on which to choose the appropriate technological methods for operation, because the efficient use of any type of raw material needs a good knowledge of the properties of these raw materials and their suitability for different uses. The textile industry no longer depends solely on inventions and engineering skills, but has become a modern scientific industry and scientific methods in this industry have become of great importance for solving technical problems and monitoring the quality of production and its development and improvement, and modern science and technology has presented us every day with something new, whether in raw materials or in Manufacturing machinery The garment industry has become a rapidly developing and innovative industry. The process of blending in the textile industry is defined as the compound, of fibers of different properties together in making yarns and blended fabrics well blended and homogeneous of different fibers, and blended yarns are defined as yarns made of two or more types. Hence, the problem of research can be summarized in how to get the best specification of yarn as a result of blend twisted cotton and acrylic. To achieve this goal,(9) samples of cotton and acrylic, were produced during the final spinning phase, to obtain new yarns with new properties. The research has resulted in some of the most important results:

1. When The higher of the count yarn and the cotton ratio increases, the tensile strength, the cut load and the elongation decrease
2. The uniformity of the yarns produced decreases by increasing the percentage of cotton and the count yarn.
3. The number of neps of the yarns produced increases by increasing the percentage of cotton and the count yarn.
4. The percentage of Migration of the fibers produced increases with the increase in the percentage of cotton, and decreases with the increase of the count yarn

Keywords:

Blend yarns-Folded yarns - Fancy yarns - Migration of the fibers