The effect of twisting threads on the surface contact of curtain fabrics Prof. Abla Kamal El Dien Tawfek (design professor – faculty of applied art – spinning &weaving &knitting department-Helwan University) <u>dr.ablakamal.ak@gmail.com</u> Prof. Ola Mohsen Darwish (textile technology professor – faculty of applied art – spinning &weaving &knitting department- Helwan University) <u>o.mohsen.darwish@gmail.com</u> Researcher. Amal Bassiouny Fathalla (spinning &weaving &knitting engineer) <u>basiounyamal@yahoo.com</u>

Abstract:

Innovation in fabric design depends on many conditions, the most important of which is the applicability of the decorative unit to the structural composition of the woven and the nature of the material used in addition to its compatibility with the method of implementation, and generally the appearance and quality of the final woven are affected by the textile specifications in terms of yarn spinning, the number of twists in the unit of measurement and the type of each of the warp and The weft and the density of warp threads and the weft in the unit of measurement and number of threads in the comb, as well as textile structures or application method in addition to the final processing of the produced fabric , The research problem is summarized in the lack of adequate utilization of silk filaments despite the importance of these filaments and their properties in terms of accuracy, strength and continuity And the extent of the effect of the twisting difference on the silk yarns to produce crepe or plisse fabrics for the curtains.

Many researchers have proven that twisting has a great effect on the aesthetic appearance of the fabrics. With the increase of the twisting, the thread impregnation increases in the fabric, thus producing a cloth with a rough, uneven surface that takes different shapes and is characterized by aesthetic properties represented in the change in texture and the appearance of irregular shapes on the surface of the fabrics which gives an extension to the design, and The increase in twisting results in an increase in the durability of the thread, a decrease in the diameter of the thread and an increase in its density. The amount of twist has an effect on the contracting properties of the fabric, as the filaments have a low number of twists and tend to shrink more than those with high twists.

The research aims to use the textile materials that are characterized by beauty and luxury, such as the material of natural silk and the work of a number of different twists in the unit of measurement for them to open new horizons characterized by luxury, beauty and innovation in the world of curtains design to obtain aesthetic effects on the surface of the woven, such as plecia and crepe, and it is clear from this the importance of research to benefit From silk yarns to produce embossed fabrics with innovative designs, and the use of a variety of twirls to obtain fabrics with different artistic effects, and the use of different operational methods to achieve the functional and aesthetic aspect, the research follows the experimental analytical method

Sixteen samples were produced on warp of fixed specifications with changing wefts in each experiment by placing different wefts with different twists , It was found that the weft of low

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number of twists emerged and rose on the surface of the fabric over the weft of high number of twists as a result of the pressure of weft with high twisting on low one , which led to its emergence on the surface. It was also buzzed that the more twists, the more fabric thickness.

Keywords:

Natural silk ,yarn twisting , Crepe Fabric