

Effect different Some Construction on the functional properties of Clothes Ladies by using Tencel Fibers

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ABSTRACT

The basic function of the clothing is to cover the body in a way that protects it from the harmful effects of environmental factors and variables in addition to the aesthetic function of the clothing that makes the person feel self-confident. The dynamics of clothing work plays an important role in the balance between the human body and the surrounding environment a way that they reflect away from the body or absorb it.

The choice of fabrics and clothing is not easy. It is subject, inter alia, to natural properties and fitness for the purpose for which they are used and the price.

The study investigated the production of this type of fabric and studied the Effect different Some Construction on the functional properties of Clothes Ladies by using Tencel Fibers. 10 samples were produced using cotton and Tencel by different number of Weft and textile structures. The air permeability, thickness test, weight, tensile strength, elongation in both directions, and most samples achieved the required results.

Keywords: Tencel - Cotton - Mock Leon woven – satin 6.



Research problem:

- The scarcity of the use of Tencel fiber in the manufacture of women's clothing, despite the availability of the characteristics of the distinctive material and suitability for job performance.
- The need to improve the functional characteristics of ladies' clothing fabrics to suit the final use.

Research importance

The research contributes to opening new horizons for the use of textile Tencel materials in fabrics used for ladies' clothing and its effect on the final properties.

Search aim

- Domestic production of women's clothing used economically.

- Analytical study of the effect of some constructor on the functional characteristics of women's clothing by using the Tencel material by achieving the best structure and the best mixing ratio for the material of the Tencel.

Research hypotheses

Structural constructor (the difference in the mixing ratios of weave - textile structure) improves the functional performance of the fabrics produced.

Research Methodology:

The research follows the analytical experimental method.

MATERIAL AND METHOD

FABRICS

The samples were produced by using the Tencel of 30/1 cotton, with different mixing ratios with cotton 30/1 cotton (All weft cotton , 3 weft cotton :1 weft Tencel, 1 weft cotton :1 weft Tencel , 1 weft cotton :3 weft Tencel , All weft Tencel).

METHOD OF CONSTRUCTION

- The samples were produced using two textile structures using (satin 6 – Mock Leon woven).

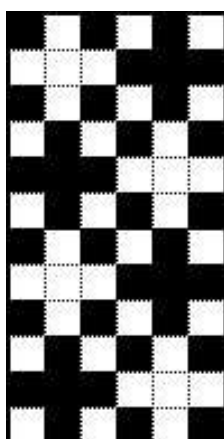


Fig: Mock Leon woven

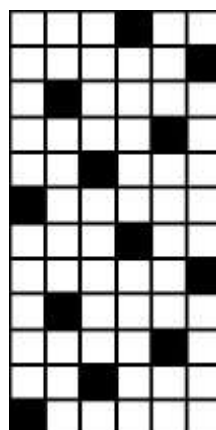
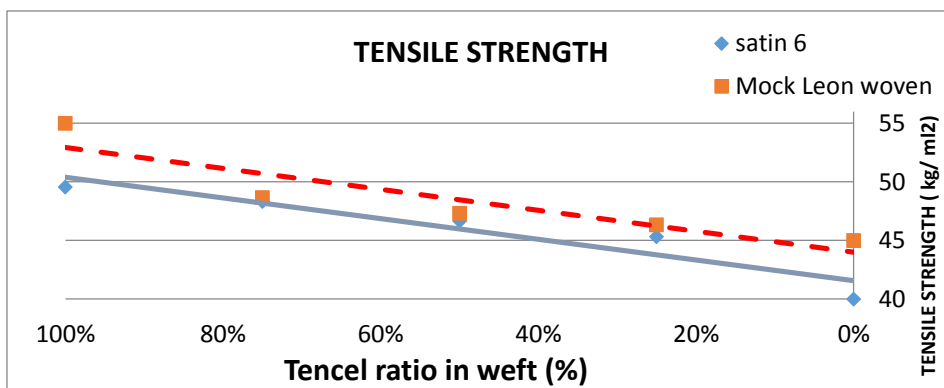
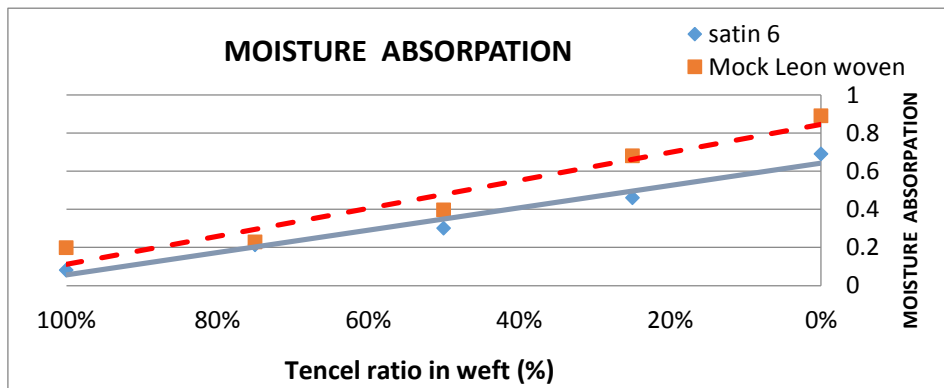
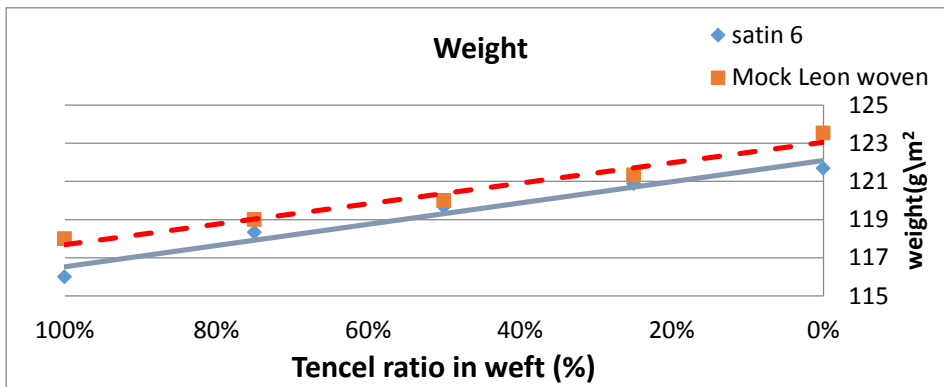
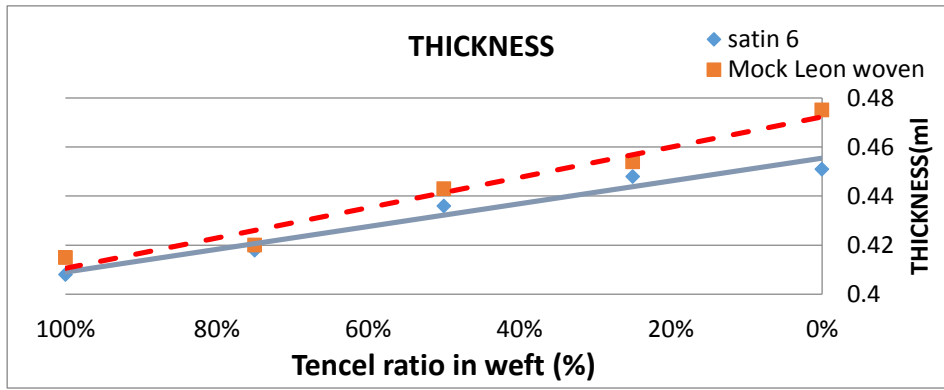


Fig: satin 6

MEASUREMENTS

- | | |
|--------------------------|-----------------------------|
| 1- THICKNESS TEST | 2- FABRIC WEIGHT TEST |
| 3- TENSILE STRENGTH TEST | 4- ELONGATION TEST |
| 5- STIFFNESS TEST | 6- MOISTURE ABSORPTION TEST |
| 7- Air permeability | |



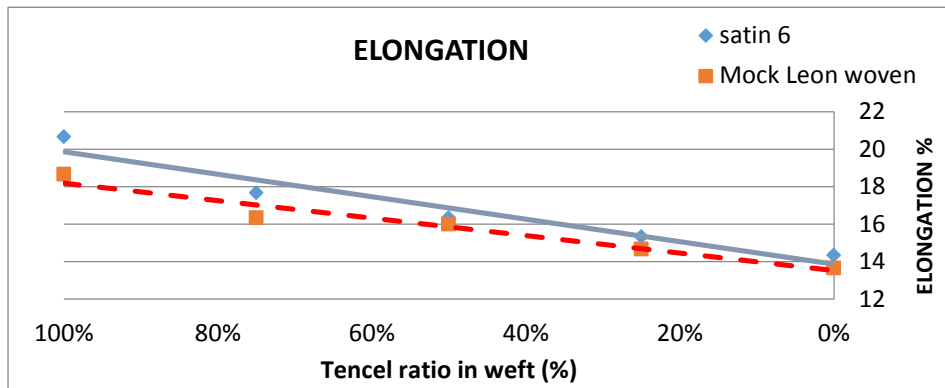


Figure: Results through statistical forms

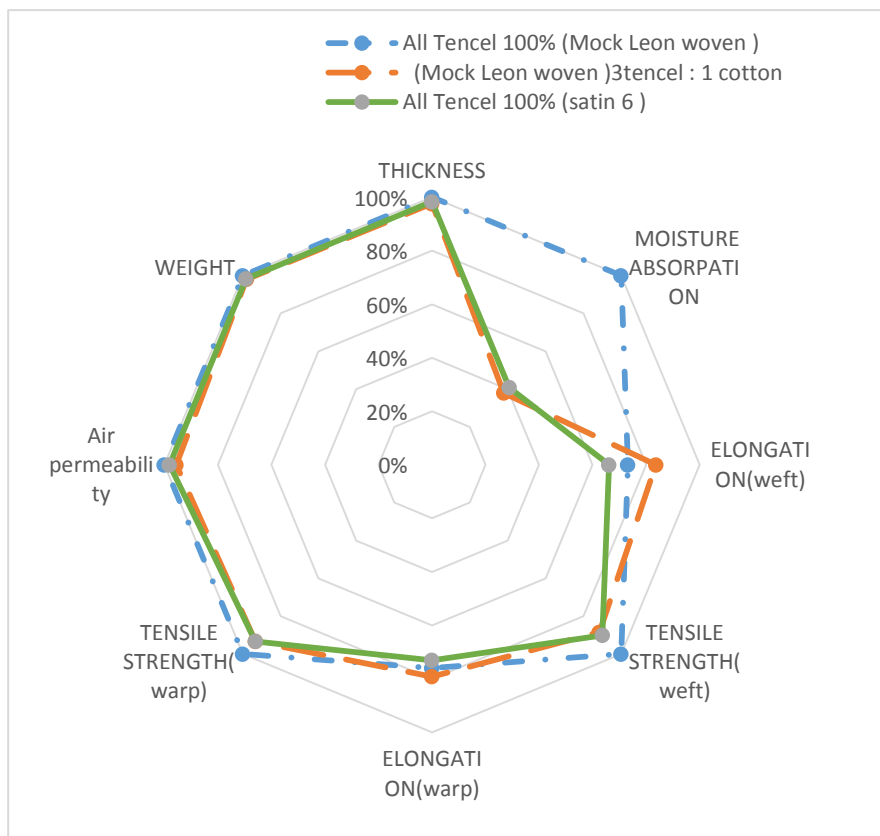


Figure: Three samples of better quality

CONCLUSIONS

- There is an inverse relationship between the increase in the mixing ratio of the Tencel in weft and Thickness test, also the weight of the square meter. The higher the mixing rate, the less the thickness due to the lower harness of the Tencel.
- There is a positive relationship between tensile strength, and the ratio of the mixing of the tencel in weft, The higher the mixing ratio of the tencel in weft, the stronger the strength due to the density of the quality of the tencel = 1.7 g / cm³, while the cotton material density = 1.54-1.56 kg / cm³, the strength of the cotton is higher.
- There is a positive relationship between elongation and the proportion of mixing of Tencel in weft. The higher the proportion of tencel, the longer the elongation.

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