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## **THE INFLUENCE OF THE RAW MATERIAL CONTENT AND STRUCTURAL CHARACTERISTICS OF INTERLOCK DOUBLE LAYERED KNITTED FABRICS ON THE PHYSICO-MECHANICAL PROPERTIES**

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Over the last few years there has been a growing interest in knitted fabrics due to its simple production technique, low cost, high levels of clothing comfort and a wide product range. The customers expect their clothing to be durable, that is, to remain the same dimension and be resistant to attrition.

In this paper double layer knitted structures (interlock) have been constructed and knitted using cotton yarn in face and polyamide or polyester filaments in back layers of the fabrics. Knitted fabrics have different density.

The influence of structural characteristics and raw material content of interlock knitted fabrics on the physico-mechanical characteristic (breaking strength, bursting strength, tensile properties, abrasion resistance and dimensional stability) was investigated.

The results obtained showed that with the increase of the density the bursting strength also increased. All investigated knitted structures have higher tensile strength, the course related to tensile strength, the wale. Knitted fabrics with PES had higher specific breaking strength related to knitted fabrics with PA. Interlock knitted fabrics made from cotton/polyester showed a significant difference in the weight loss from the cotton layer related to the layer of PES, while with the knitted fabrics made from cotton/polyamide the difference is not as pronounced.

This research indicated that the row content, as well as small changes in structural parameters, lead to significant changes in physico-mechanical characteristics of the interlock knitted fabrics.