

عنوان مقاله:

Influence of Cover Factor on the Physical Properties of Woven Fabrics

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خلاصه مقاله:

The aim of this paper is to explore the influence of cover factor on the physical properties of woven fabrics. 100% cotton woven fabrics of different thread count and width were used in this research for investigation. Nine types of fabric with different weaves like plain (1/1), twill (3/1) and 5 ends satin (4/1) were used while conducting the tests. The experiments were carried out in agreement with the test method provided by ASTM and AATCC as mentioned inside the paper. The cover factors of the samples were measured with an appropriate equation using weave factor values. It was seen from the research that, plain weave fabrics showed the maximum cover factor and weight (g/m²) values compared to twill and satin fabrics. It was because, plain weave contains maximum interlacement points compared to other weave structures. The fabrics of plain weave showed the maximum strength values, maximum air permeability values, and least shrinkage values. Fabrics with plain weave contain more interlacement, thus showed the maximum air permeability values. This research is practice-based and opens up possible ways for further study by technologists in this field of fabric cover factor and its influence on the physical properties of fabrics.

کلمات کلیدی:

cover factor, Strength, dimensional stability, air permeability, microscopic assessment

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