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Production of Bamboo Children`s Garment Fabrics Using Figured Double-Sided Jacquard Technique

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Abstract:

The weave structure of double-cloth fabrics permits using various structures for both sides of the fabric, and this can be beneficial in the functionalization of the produced fabrics. Since children's clothing fabrics are produced using conventional techniques, and regarded as one of the most clothes that gets soiled and one the most financial burdens on the family, the intent of this research was to obtain figured double-sided jacquard fabrics used for children's clothes that achieve aesthetic, functional, and commercial values. In addition to the production technique used for the children's clothing fabrics, bamboo material was used as weft yarn threads. This is because the use of environmentally friendly materials is one of the most important modern trends in the manufacture of clothes in general and particularly children's clothes to be safe on the environment and on the health and skin of children. Hence the importance of this study lies in creating novel visions in fabric design that is capable to compete other fabrics in the local and international market. Three samples of different densities of bamboo wefts (40-44-48) weft/cm were produced using the double-sided jacquard technique. Laboratory tests were conducted on the produced samples (tensile strength and elongation - weight - thickness - air permeability - resistance to friction). The results of the research showed that the higher the density of the bamboo wefts, the greater the tensile strength, elongation, weight, and thickness, as well as the frictional resistance of the produced samples, and the lower the air permeability

Keywords:

figured double face, double cloth, jacquard fabric, Bamboo, children's clothes, aesthetic values, functional values.

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