

Determining physiological standards for the production of Fabrics for use in clothing of intellectual disabilities

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Abstract:

The childhood stage, especially of children with intellectual disabilities, is one of the most important stages in the life of the affected person. The child is the basis for which we aim and direct attention to it. It is the fruit that society reaps. The child is exposed to many problems, especially skin problems. Most of the skin problems in childhood are either caused by Allergic skin diseases from skin infections or bacterial, and the child also occurs psychological disorders such as anxiety and tension may appear in the form of a skin allergy. Attention must be paid to the fabrics used in clothes for people with mental disabilities, and they must have all the specifications in order to suit the end use, taking into account the commitment to all the required specifications to meet the users' comfort requirements through the use of appropriate modern fibers that have several characteristics and must have the ability to have high permeability For air, high ability to absorb moisture, softness to the touch, and resistance to bacteria and fungi. Modal and bamboo fibers have multiple properties. They are cellulosic manufacture fibers, suitable for rapid water absorption and dehydration, so that their users can enjoy comfort. They are different by being a soft and smooth surface, low in weight, and have high air permeability when compared to cotton. Interest in these modern cellulosic materials is increasing in use recently, which dictates the need to develop and raise the efficiency of the performance of these fabrics of clothing, in terms of using the most appropriate structural composition and the most appropriate mixtures to reach the highest levels of quality that achieve its effectiveness. **Objective:** The research aims at local production of fabrics suitable for use in high-performance clothes for people with mental disabilities, researching the properties of comfort while maintaining the level of protection and comfort properties using modern materials, by reaching the best fibers use of the most blended ratios of the material. **Method:** Nine samples were produced using structure the Mock Leon woven, four samples of bamboo at a ratio of mixing with cotton, and five samples of modal at a ratio of mixing with cotton, as follows (100% bamboo, 75% bamboo: 25% cotton, 50% bamboo: 50% Cotton, 25% bamboo: 75% cotton), (100% modal, 75% modal: 25% cotton, 50% modal: 50% cotton, 25% modal: 75% cotton, 100% cotton), and the Number fiber to bamboo , modal and cotton from number 1/30, then do lab tests on the produced fabrics, such as thickness test, square meter weight, tensile strength in weft direction, moisture absorption, air permeability test, and most of the samples achieved the required results.

Keywords:

modal fibers, bamboo fibers, mixing ratios, Mock Leon woven, clothes, intellectual disabilities

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