

Improving the functional properties of three-dimensional fabrics in sportswear for the disabled

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Abstract

due to motor handicapped sportsman “Disability Challenger” suffering of hard in movement and a lot of Injuries resulting of Friction with Wheelchair or floor during sports practice so the research suggest using three dimension knitted fabric of double fabric to decrease the Friction ration and to realize comfort . Clothing is divided according to the type of activity into work clothes, evening clothes, morning clothes, evening clothes in addition to sports clothes. Sportswear is one of the most important requirements for sports activities for different games. The rapid development of fiber production and the multiplicity of methods and techniques of production according to "modern chemical theories, which relied on more than a technique to acquire fiber new properties in addition to the production of smart fibers have a reaction speed and interact with the nature of use and change the shape and nature according to different variables of temperature difference Or secretions of sweat and physiological changes of the human body associated with exercise of all kinds .so the search aim to Procedure tests on produced fabric of three dimension knitted fabric and the search Importance appear in study The optimal fabric to produce three dimension knitted fabric sportswear to achieve easy to move and achieve high ratio of absorption.

Nine samples of fabrics had produced using different fabric and double knit construction with different space using a gauge (7) flat knitting machine.

The study results showed that The three dimension double layer weft knitted executive methods have an effect on the natural and mechanic properties of the fabrics, and Sample number (8) of boucle fabric and double construction using cotton/lycra fabric is the ideal sample in (water absorption ,thickness and bursting resistance .so the searcher suggest using it to produce sample.

Key words:

Fashion design –sportswear - motor handicapped –three dimension knitted