مراقبة جودة الشريط المطاط في المنتجات الملبسية

Quality Control of Rubber Band in Clothing Products

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Abstract:

This study discusses the different types and shapes of elastic bands used in the textile industry as concerns the width, reinforcement, fabric structure, material as well as the properties of each type and its different structures in addition to examining their impact on the used fabrics.

Elastic bands usually consist of thin plastic threads woven with thin cotton, mixed or synthetic threads to secure the elasticity that is necessary for the bands.

based on this, elastic bands are categorized in accordance with their structure into braided, woven, knitted and raw elastics.

Natural rubber latex is the raw material of the rubber used in elastic bands and it is gathered from rubber trees which are common to East Asian countries such as (Thailand, Indonesia and Malaysia). This natural product is then processed and treated with different chemicals at different cycles which eventually lead to the production of a form of rubber suitable for different practical aspects of this study are lab examinations intended for measuring the elongation and stretch of the elastic band on application with different fabrics before washing and after being washed five different times at 40 degrees Celsius and 5 more times at 90 degrees Celsius. 36 different samples were examined before and after washing.

Imported elastics had the best performance in the pre-washing test while Egyptian elastics had the best performance in the post-washing test which was conducted in different temperatures.

Thus, the best method of application-washing test while Egyptian elastics had the best performance in the post-washing test which was conducted in different temperatures. Thus, the best method of application was shown to be stitching the elastic directly to the fabric using zigzag stitches.

Keywords: Rubber Band - Stress Decay - Residual stretch