



The Influence of the Characteristics of Knitwear in Parts of Classic Socks on Some Usage Properties

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Socks are an essential item of everyday clothing, and therefore, it is crucial that they are comfortable, long-lasting and affordable. In the study, five different cotton type socks were analyzed based on their raw material composition and structure. Samples of right-left knitted fabrics from the foot, heel and toes were used (on which the basic characteristics were checked: linear density yarn, density loop, loop length, surface mass, thickness, etc.), which were subjected to measurements of air permeability and abrasion resistance using methods in accordance with EN ISO and ISO standards. The results showed that the air permeability is higher in sock samples with a lower percentage of cotton fibers, as well as samples with lower densities and thicknesses compared to the others. In terms of abrasion resistance, samples with a lower percentage of cotton and a higher percentage of lycra exhibited greater changes in appearance (after 5000 cycles, the rating was 1-2). The samples of socks with polyamide fibers proved to be more resistant, as well as those with higher densities (rating 2-3). This research can be beneficial for companies and researchers involved in the design and production of socks, as it investigates key factors in enhancing sock performance and provide additional information for potential future improvements.

Keywords: socks, right-left knitted fabric, air permeability, abrasion resistance.

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