Identification of Seam Performance of Natural Wool Textile Fabrics

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Abstract:
Wool is a natural animal fibers spun from the fleece of sheep. To sew a wool fabric garment, play the seam performance the first role in judgment the quality of the garment, since the wool fabrics had special Characteristics. The purpose of this study is to identify the seam quality throughout determining the seam strength, seam elongation, seam efficiency and seam stiffness. For the design of experiments, three wool textile fabrics (light, medium and heavy) are chosen and sewn with different sewing factors. Three seam types (SSa-1, LSq and SSw), they differ in the number of fabric layers in the seam area. Three stitch length (1.5 mm, 3 mm and 4.5 mm) and three level of stitch rows (1 row, 2 rows and 3 rows). Results indicated that for all investigated materials and sewing factors recorded the lapped seam type SSw the highest values of the seam strength, seam elongation, seam performance and seam stiffness, followed by the lapped seam type LSq and the superimposed seam SSa-1). The stitch density, in the form of the stitch length, had a significant positive effect on the four studied seam properties (strength, elongation, efficiency and stiffness). In addition showed the number of stitch rows also a hug effect in changing the seam performance of the wool textiles fabrics.

Keywords:
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Seam strength.

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