عنوان مقاله:
The Theoretical Behavior of a Tricot Warp Knitted Fabric Subjected to Biaxial Stresses

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خلاصه مقاله:
A mathematical model of a two guide bar tricot warp knitted fabric under biaxial stresses wasdeveloped in this paper and the behavior of this approximation of a real fabric was analyzed. Somefactors such as yarn jamming, fabric geometric relations, fabric stress-strain relations, development ofbiaxial geometry and effect of yarn friction and extensibility were considered.The work follows theearlier work in which the theoretical behavior of a plain weft knitted fabric under biaxial stresses isinvestigated.The results of the theoretical analyses show a good agreement with the previous work andindicate that warp knitted fabric develop a unique mechanical behavior from its geometry and ability todeform by interyarn slipping. This structural behavior combines with the tensile properties of the yarnsto give the .final behavior of 'the fabric

کلمات کلیدی:
Mathematical model, Warp knitted, Tricot, Biaxial stresses