عنوان مقاله:

Stiffness Prediction of Beech Wood Flour Polypropylene Composite by using Proper Fiber Orientation Distribution Function

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خلاصه مقاله:

One of the most famous methods to predict the stiffness of short fiber composites is micromechanical modeling. In this study, a Representative Volume Element (RVE) of a beech wood flour natural composite has been designed and the orientation averaging approach has been utilized to predict its stiffness tensor. The novelty of this work is in finding the proper fiber orientation distribution function to increase the precision of the stiffness prediction of this kind of natural composites. The predicted results for stiffness with the micromechanical modeling are compared to the experimental test results and FEM results of beech wood flour/polypropylene composite

کلمات کلیدی:

,Stiffness Prediction,Micromechanical Modeling,Orientation Averaging,Fiber Orientation Distribution Function