

MATHEMATICAL MODELLING OF MECHANICAL BEHAVIOR IN RANDOMLY ORIENTED MICRO CRYSTALLINE CELLULOSE-BASED POLYMER COMPOSITE

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There are many theoretical models to predict the mechanical properties of Continuous long-fiber composites. But there is no proper mathematical model for randomly oriented short fiber composites (ROFC). This research aims to develop a useful mathematical model from fundamentals for a randomly oriented short fiber reinforced composite. The developed theoretical model was validated using a computational Analysis.

Keywords: mathematical model, randomly oriented, composite