STRENGTH ANALYSIS OF DRINKING GLASS BOTTLE

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ABSTRACT

Finite Element Method has rapidly become a vital tool for analysis in structural designs. This method is extremely powerful in terms of the many different types of problems it can solve. This thesis presents the analytical evaluation of the strength of a drinking glass bottle. Finite Element Method is used to predict the location of the failure of the bottle when it is subjected to a compressive load. The result from the analysis using LUSAS software will be then verified by performing a series of compression testing. Propagation of cracks will be explained using Fractography techniques. The method presented here can also be applied for other bodies of revolution.

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