

A review and comparison on some rubber elasticity models

ABSTRACT

This study reviews several classical continuum mechanics models for incompressible and isotropic materials based on strain energy potential and then compares ability of neo-Hookean, Yeoh, Mooney-Rivlin and Ogden models in predicting uniaxial deformation states based on experimental data from dumb-bell test specimen under uniaxial loading.

Keyword: Curve fitting; Hyperelasticity; Rubber; Strain energy density