

عنوان مقاله:

Springbackward Phenomenon of a Transversely Isotropic Functionally Graded Composite Cylindrical Shell

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خلاصه مقاله:

This article gives an approach to predict the springbackward phenomena during post solidification cooling in a functionally graded hybrid composite cylindrical shell with transverse isotropic structure. Here the material properties are considered to be given with a general parabolic power-law function. During theoretical analysis, appropriate transform is introduced in the equilibrium equation which is resulting into hyper geometrical differential equation. Thermoelastic solutions are obtained and are investigated for homogeneous, nonhomogenous and elastic-plastic state. The solution is validated by applying it to a multilayered functionally graded cylindrical shell using transfer or propagator matrix method

کلمات کلیدی:

Thermoelasticity, Functionally Graded Hybrid Composites, Cylindrical Shell, Spring Backward Effect

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