

The Creep Analysis of a Varying Thickness on a Rotating Composite Disk with Different Particle Size by Using Sherby's Law

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Abstract : The objective of this paper is to present the study of the effect of varying thickness on rotating composite disks made from Al-SiC_P having different particle sizes. Mathematical modeling is used to calculate the effect of varying thickness with different particle sizes on rotating composite disks in radial as well as tangential directions with thermal gradients. In comparison to various particle sizes with varied thicknesses, long-term deformation occurs. The results are displayed visually, demonstrating how creep deformation decreases with changing particle size and thickness.

Keywords : creep, varying thickness, particle size, stresses and strain rates

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