

VIBRATION CHARACTERISTICS OF LAMINATED COMPOSITE PLATES

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ABSTRACT

Laminated composite plates have been widely used in various industries such as aerospace, aircraft, automotive and audio because of their advantageous properties. Laminated composite plates used to fabricate structures or parts are in general joined together using flexible connectors or restrained by other structural components, which act as flexible supports to the plates. The free vibration characteristics (natural frequency and vibration shapes) of the elastically restrained laminated composite plates used in flat panel radiators are studied in this paper. The effects of layup and size of the composite plates on the modal characteristics and the natural frequencies are studied.

KEYWORDS: Composite Plate, Free Vibration, Modal Analysis