

Composite Characterization using Infrared Inspection Technologies

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Abstract

Nondestructive evaluation (NDE) is an important part of design and manufacturing of solid laminate composite materials. The wide range of materials, processing and configurations used in composite fabrication are in constant need of new inspection techniques. Pulsed thermography infrared (IR) imaging and data analysis is becoming a common aerospace NDE technique that helps characterize the composite structure after the curing process. This paper describes IR camera characteristics, experimental set-up and data analysis of thin solid laminate samples placed on top of metal disks. The logarithmic temperature time plots of the surface and the effects of subsurface features will be presented.

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