

Thermography as a routine diagnostic for mechanical testing of composites

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Abstract

Active and passive infrared thermographies, techniques extensively used in NDE, can also be used to monitor mechanical test of composite materials. These techniques permit a better understanding of the damage and ruin mechanisms. This is illustrated by the application of thermography to the tensile loading experiments of two sandwich coupons (carbon/epoxy skins and aluminium honeycomb core). Active thermography permits the detection and characterization of delaminations in the skins at various stages of the loading and passive thermography allows the localisation of the initiation of the catastrophic breaking.

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