

Investigation of multiple cracking in glass/epoxy 2D woven composites by vibrothermography

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Abstract

An experimental study about the application of vibrothermography for the investigation of multiple micro-cracking in woven composites is here reported. The material is first damaged during tensile loading tests in order to have samples that present increasingly damaged states. The goal of the study is to apply vibrothermography to compare the sensitivity of their heating behaviour (global and local) with the crack density. A correlation between the heating and the loss of a mechanical property of the material (in this case the Young modulus) estimated with the tensile loading tests is also highlighted.

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