

Investigation of Low Energy Impact on Aeronautical Composite

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Abstract

Composite behavior when undergoing to low energy impact has been investigated thorough modelling and simulation computation. We consider the dynamic impact among a small granular material piece and a large composite material body. Really, our investigation will to simulate the aeronautical debris impact similarly when aircraft perform the taxi on the runway or when in the deceleration phase after the landed. Here we consider a CFRP composite panel impacted from with granular particle at low velocity. We develop a finite element analysis initially on the macroscale and successively at microscale where in particular we find inside delamination in according to the experimental results.