

Impact damage on composite structures – a review

ABSTRACT

This paper is a study of impact damage for composite material. The damage of composite structures caused by impact events is one of the most critical behaviours that inhibits more widespread application of composite material. It is important to study and understand the damage mechanism in order to produce effective designs for composite structures. The aerospace industry is one of the industries that uses composite material widely in its structures. The failure caused by impact damage will contribute to unexpected scenarios. This paper discusses damage in composite material, impact in composite material, classification of impact, impact response, high velocity impact, energy absorption and impact force of composites, and modes of failure.

Keyword: Magnesium hydroxide; Zinc borate; Melamine; Synergy; Ignition time; Flame propagation rate