

## **Low velocity and high velocity impact test on composite materials - a review**

### **Abstract**

A question that is naturally raised is how to improve the survivability of aircraft structures regarding low and high velocity impacts. Since structural failure is caused primarily by fracture, a fundamental understanding of the mechanisms and mechanics of the material is one of the most important steps needed to solve the problem. In a high velocity impact, fracture often occurs in an impacted zone where compression is dominant. For a low velocity impact, invisible cracks often occur, but they cannot be seen using the naked eye. It is important to understand the deformation and damage mechanisms involved in the impact of targets, for the effective design of composite structures.

**Keyword:** Composite materials; High velocity impact; Impact damage; Low velocity impact; Non-destructive testing