

Abstract

A sandwich structure consists of a light core and two thin laminates bonded on both sides of the core. Sandwich structures have applications in structural constructions such as wind turbine blades and marine boats. These structures may experience low-velocity impacts from maintenance operations or during service conditions; thus, it is important to study these low-velocity impacts. In the current study, a sandwich structure was fabricated from PVC foam core and unidirectional glass fibers using the vacuum resin infusion method. The PVC foam core used was of 10–20 mm thickness while the face sheet had two different thicknesses. The panel was tested for impact strength using drop weight equipment at impact energies at three energy levels. The results were reported for damage area, force time, force–displacement and energy–time curves.