In order to better exploit the natural cork available in Algeria, an experimental characterisation of a jute/epoxy—cork sandwich material to impact and indentation was undertaken. The aim of this work is to evaluate the impact energy and cork density influence over the sandwich plate damage behaviours by instrumented static and dynamic tests. The results show that the onset damage force, the maximum force and the damage size are influenced by the cork density and the impact energy. The sandwich material, with the heavy agglomerated cork having a density of 310 kg/m3 is characterised by a weaker energy dissipation capacity, by about 3.72% for impact test and 3.29% for indentation one, than the sandwich with lighter cork (160 kg/m3). This difference is an infusion process consequence. The infiltrated resin into the agglomerated cork pores changes the material local rigidity. Also, under impact loading the sandwich laminates dissipate 11% more energy than with the quasi-static indentation test