2016

## Mechanical Characterization of a new hybridJute/ Glass reinforced laminates

## Hamza Bouguessir, Harkati Elhaddi, Rokbi Mansour

**Abstract :** The greatest challenge, nowadays, in all science fields is toface the rarefaction of fossil resources. The solution in civilengineering and in transportation is to lighten the construction materials. For this end, the compositematerials have been, logically, i mposed since the secondhalf of the past century thanks to their specific mechanicalcharacteristics. In the two last decades, extraction and useprocedures of natural fibers have known an important increase for the reinforcement of composite materials called Biocomposites. This category of fibers possesses a lot of advantages upon those traditional synthetic such as: Abundantly available, reduced cost, lightness and satisfactory specific performances. The current study has the aim of characterizing a new hybrid laminate made up of 4 plies; the upper and lower ones are reinforced with glass mat fabrics while the two central ones are reinforced with natural Jutewoven fabrics. The main idea of this work is to preserve sufficient mechanical characteristics by reinforcing the most solicited

**Keywords:** composite materials, natural fibers, laminates, hybrid reinforcement.