Selection of natural fibre for hybrid laminated composites vehicle spall liners using analytical hierarchy process (AHP)

ABSTRACT

Natural fibres with variable properties are found in many engineering applications because of its low cost and biodegradability .The selection of suitable fibres involves the evaluation of a number of alternatives based on certain criteria. The purpose of this study is to suggest the use of analytical hierarchy process (AHP) in the selection of natural fibres for hybrid laminated composites. It was found that the most suitable natural fibre to be used with Kevlar 29 in hybrid laminated composites is kenaf fibre. It is expected that this finding will significantly contribute to the development of hybrid laminated composites for vehicle ballistic protection.