ENERGY ABSORPTION AND BALLISTIC IMPACT BEHAVIOUR
OF KEVLAR WOVEN FABRICS

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ABSTRACT

Kevlar-29 fibers are most widely used as an impact resistance in body Armor. This study deals with energy absorption behavior, ballistic limit, of Kevlar-29 / Epoxy, Nanoclaysclosite and PaspalumScrobiculatum of different weight percentage of matrix. To investigate these behaviors in composites, the laminates are made by using Compression moulding techniques. High velocity impact testing setup consists of a piston type air gun apparatus with a projectile of diameter of 9.5 mm and 8g has been used in the laminate with the same initial velocity for obtaining the residual velocity of the target. The results revealed that the addition of Paspalum scrobiculatum promotes maximum energy absorption in the laminates produced with 5% wt of matrix.

KEYWORDS: Kevlar-29 Fibres & Compression Moulding Techniques

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