Energy absorption of circular honeycomb out-of-plane dynamic impact under oblique loading

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ABSTRACT

This paper presents the circular honeycomb filler subjected to oblique loading (θ = 0° to 30°). The models are tested by dynamic impact test. In this research, aluminium alloy AA 6060 T4 circular honeycomb which bottom is fixed, and top is subjected to θ. The finite element analysis using ABAQUS code was validated according to the relevant experimental data. The performance of energy absorption (EA) and specific energy absorption (SEA) on different angles of loading were presented. The result showed, increased of θ, the decreased of both EA and SEA.

KEYWORDS

Circular honeycomb; dynamic impact; oblique loading

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