

## Accepted Manuscript

High-velocity impact behaviour of aluminium honeycomb sandwich panels with different structural configurations

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PII: S0734-743X(18)30119-2  
DOI: <https://doi.org/10.1016/j.ijimpeng.2018.08.007>  
Reference: IE 3152



To appear in: *International Journal of Impact Engineering*

Received date: 7 February 2018  
Revised date: 23 May 2018  
Accepted date: 13 August 2018

Please cite this article as: Guangyong Sun , Dongdong Chen , Hongxu Wang , Paul J. Hazell , Qing Li , High-velocity impact behaviour of aluminium honeycomb sandwich panels with different structural configurations, *International Journal of Impact Engineering* (2018), doi: <https://doi.org/10.1016/j.ijimpeng.2018.08.007>

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## Highlights

- Increasing facesheet thickness caused smaller deformation depths but larger deformation areas.
- Core height had a small effect on the ballistic limit velocity of sandwich panels.
- Front facesheet failed more easily due to stress concentration with the increase of core stiffness.
- The increase of front-to-back thickness ratio led to higher damage resistance.
- A structural optimisation for maximising the specific energy absorption was presented.

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