

Fabrication, characterisation and modelling of uniform and gradient auxetic foam sheets

DUNCAN, Oliver http://orcid.org/0000-0001-9503-1464, ALLEN, Tom, FOSTER, Leon http://orcid.org/0000-0002-3049-5724 and ALDERSON, Andrew http://orcid.org/0000-0002-6281-2624

Available from Sheffield Hallam University Research Archive (SHURA) at:

https://shura.shu.ac.uk/14650/

This document is the Accepted Version [AM]

Citation:

DUNCAN, Oliver, ALLEN, Tom, FOSTER, Leon, SENIOR, Terry and ALDERSON, Andrew (2017). Fabrication, characterisation and modelling of uniform and gradient auxetic foam sheets. Acta Materialia, 126, 426-437. [Article]

Copyright and re-use policy

See http://shura.shu.ac.uk/information.html

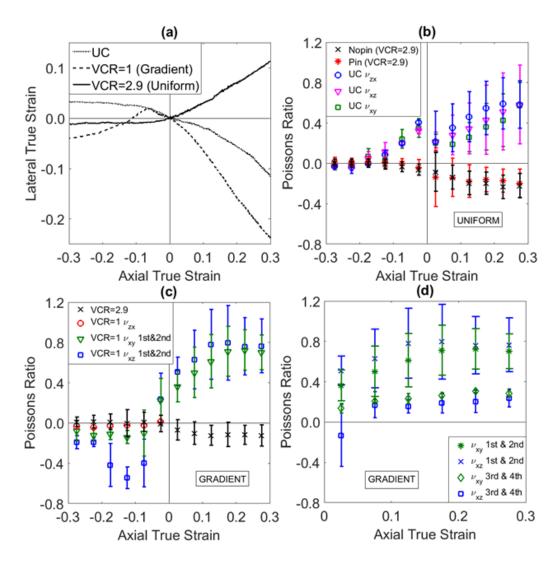


Figure 4: PR responses. a) Lateral vs axial true strain for VCR=2.9 uniform triaxially-compressed sample converted with pins, unconverted (UC) sample and VCR=1 gradient sheet sample, b) PR vs axial true strain for UC and uniform triaxially-compressed samples, c) PR vs axial true strain for gradient sheet samples (VCR=1 tensile data from 1^{st} and 2^{nd} tests performed on each sample – see text) and d) PR vs axial true strain for all tensile tests on VCR=1 region (gradient foam), grouped according to tests 1 and 2, and tests 3 and 4 – see text). Error bars = 1 S.D.