

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

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

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.

Copyright and re-use policy

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

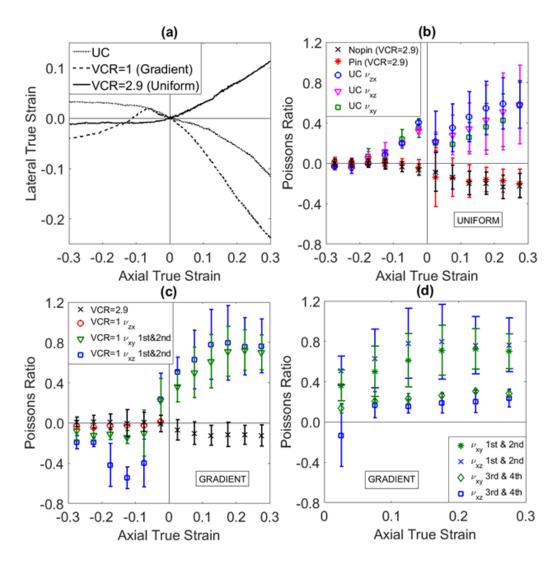


Figure 4: PR responses. a) Lateral vs axial true strain for VCR=2.9 uniform triaxially-compressed sample converted with pins, unconverted (UC) sample and VCR=1 gradient sheet sample, b) PR vs axial true strain for UC and uniform triaxially-compressed samples, c) PR vs axial true strain for gradient sheet 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.