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Supplementary Materials: Effect of Compressive Strain Rate on Auxetic Foam

Olly Duncan [1,2,*], Nicolas Bailly [3,4], Tom Allen [1], Yvan Petit [3,4], Eric Wagnac [3,4] and Andrew Alderson [2]

[1] Department of Engineering, Manchester Metropolitan University, Manchester M1 5GD, UK; t.allen@mmu.ac.uk
[2] Materials and Engineering Institute, Faculty of Science, Technology and Arts, Sheffield Hallam University, Sheffield S1 1WB, UK; a.alderson@shu.ac.uk
[3] Department of Mechanical Engineering, École de Technologie Supérieure, Montréal, QC H3C 1K3, Canada; nicolas1.bailly@gmail.com (N.B.); Yvan.Petit@etsmtl.ca (Y.P.); Eric.Wagnac@etsmtl.ca (E.W.)
[4] Research Centre, Hôpital du Sacré-Cœur de Montréal, Montréal, QC H4J 1C5, Canada
* Correspondence: O.Duncan@mmu.ac.uk

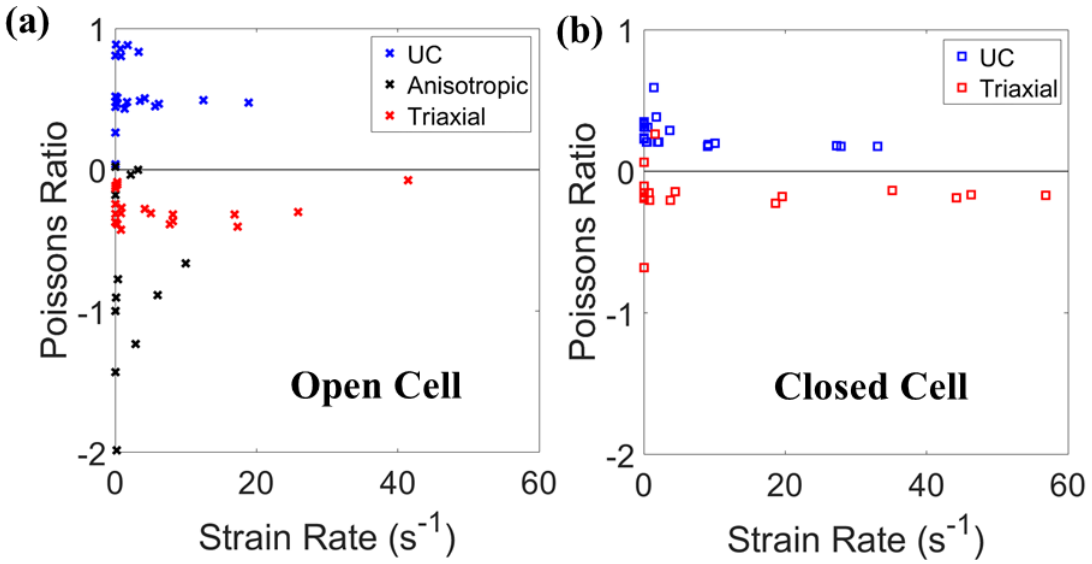

Figure S1. Poisson's ratios of (**a**) open cell and (**b**) closed cell foam measured to 2% compression vs. axial engineering strain rate, from DIC.

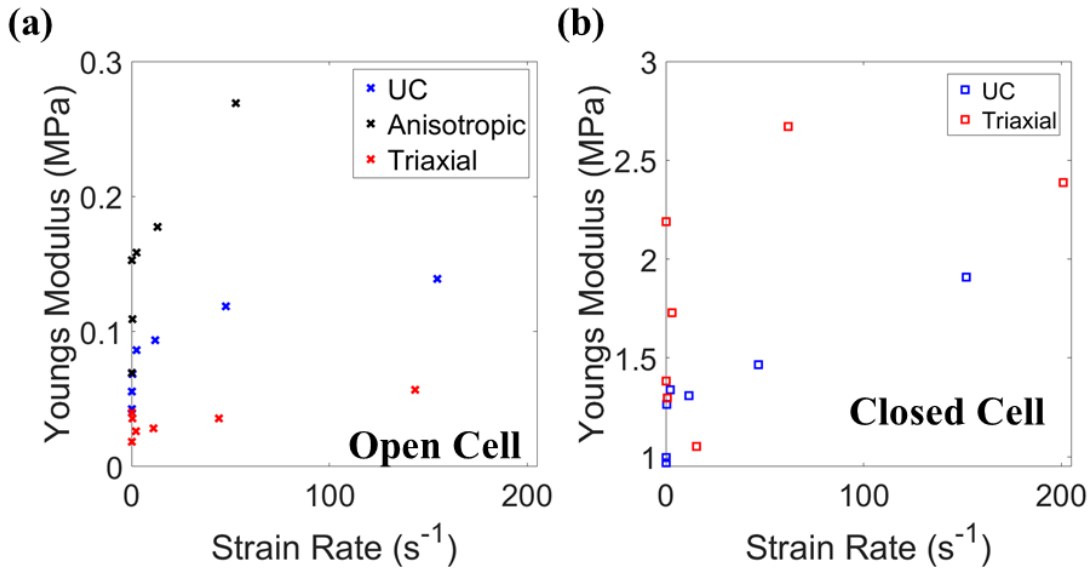

Figure S2. Young's moduli of (**a**) open cell and (**b**) closed cell foam measured to 2% compression vs. axial engineering strain rate.

Table S1. Mean density, Poisson's ratio and Young's moduli for all samples at minimum and maximum strain rates. Standard deviation (after ±) provided for low strain rate values and density measurements, where repeat testing was undertaken. Note alternative units for closed cell foams.

	Open Cell			Closed Cell	
	UC	**Anisotropic**	**Triaxial**	**UC**	**Triaxial**
Density (kg/m^3)	30.4 ± 0.51	36.0 ± 0.1	50.9 ± 6.7	50.3 ± 0.7	156.3 ± 23.8
ν 0.1 mm/s	0.27 ± 0.04	−2.02 ± 0.38	−0.35 ± 0.10	0.32 ± 0.03	−0.12 ± 0.01
ν 3,250 mm/s	0.43	−1.24	−0.30	0.18	−0.06
E 0.1 mm/s (MPa)	0.047 ± 0.001	0.086 ± 0.022	0.024 ± 0.001	1.07 ± 0.03	0.98 ± 0.02
E 3,250 mm/s (MPa)	0.140	0.194	0.043	2.08	1.74