

Electronic Supporting Information for

Ionic-covalent entanglement hydrogels from gellan gum, carrageenan and an epoxy-amine

Leo Stevens,^{a,b} Paul Calvert,^c Gordon G. Wallace,^b and Marc in het Panhuis^{a,b*}

^a *Soft Materials Group, School of Chemistry, University of Wollongong, Wollongong, NSW 2522, Australia.*

^b *Intelligent Polymer Research Institute, ARC Centre of Excellence for Electromaterials Science, AIIM Facility, University of Wollongong, Wollongong, NSW 2522, Australia.*

^c *Department of Bioengineering, University of Massachusetts Dartmouth, North Dartmouth, MA, 02747, USA**

Corresponding author e-mail: panhuis@uow.edu.au

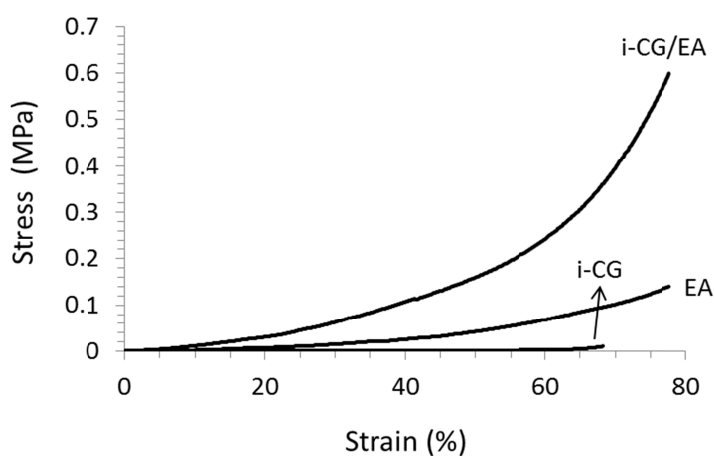


Fig. S1. Typical compressive stress-strain curves of iota-carrageenan (i-CG), epoxy-amine (EA) and i-CG/EA ICE hydrogels.

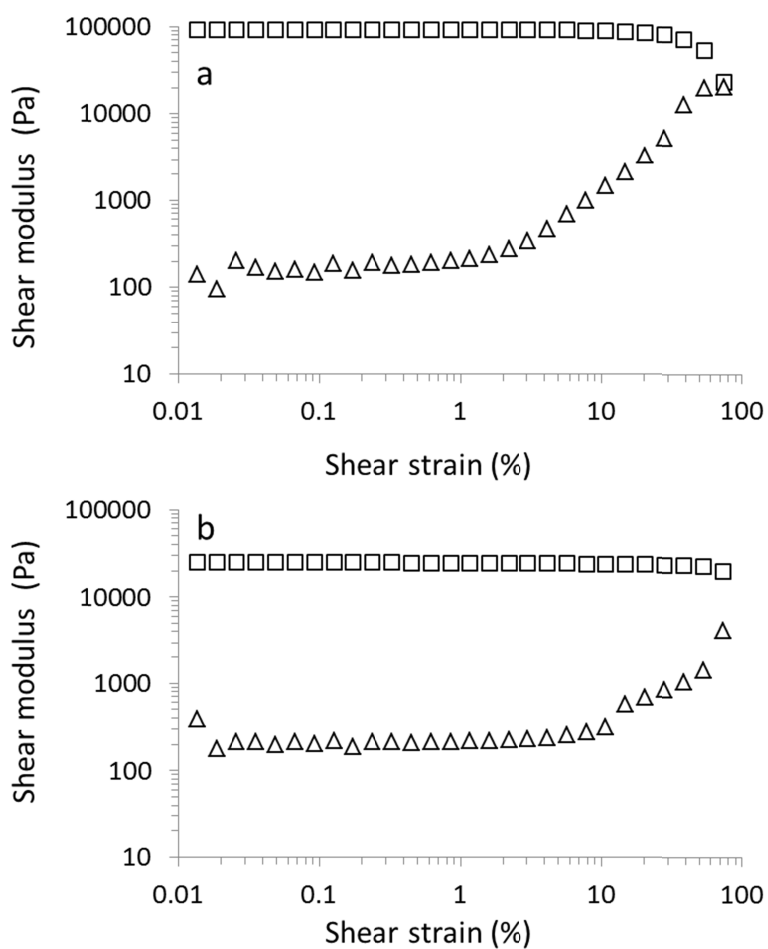


Fig S2. Typical amplitude sweeps of (a) iota-carrageenan/epoxy-amine and (b) gellan gum/epoxy-amine ICE hydrogels. Storage and loss moduli are indicated by squares and triangles, respectively.

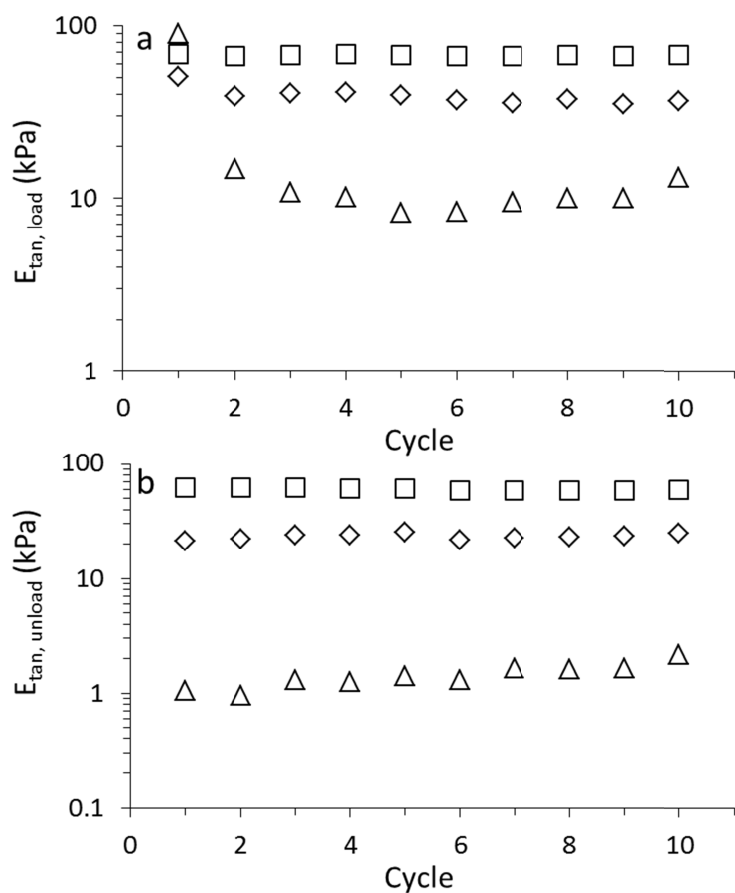


Fig. S3. Typical tangent moduli (20-30% strain) calculated using the (a) loading and (b) unloading parts of the cyclic testing regime for gellan gum (GG, triangles), epoxy amine (EA, squares) and GG/EA ICE (diamonds) hydrogels.