

Supplementary Information

**Injectable Ultrathin Porous Membranes Harnessing Shape Memory Polymers
for Retinal Tissue Engineering**

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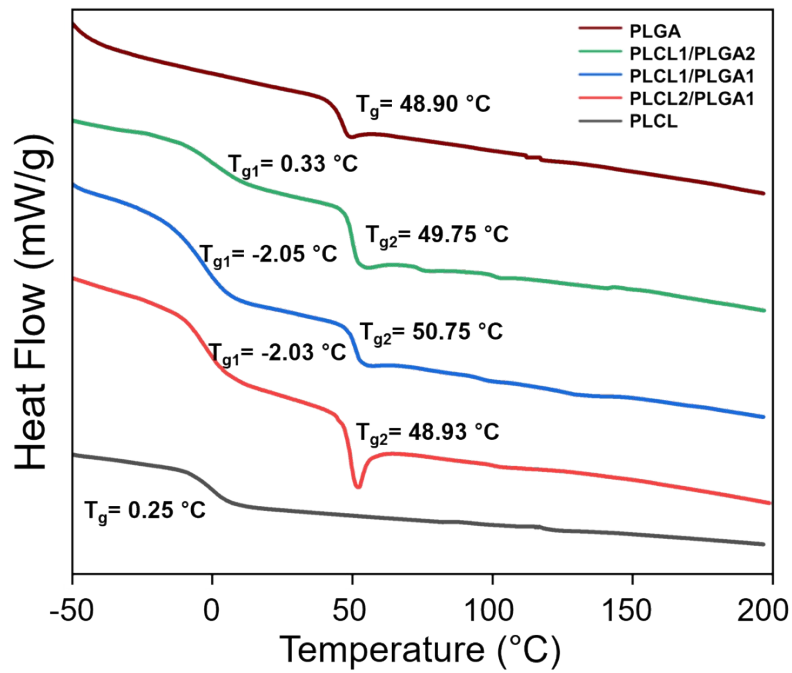


Fig. S1 Differential Scanning Calorimetry (DSC) heating curves of PLCL, PLGA, PLCL1/PLGA1, PLCL1/PLGA2, and the PLCL2/PLGA1 blend, showing glass transition temperature (T_g) for each material.

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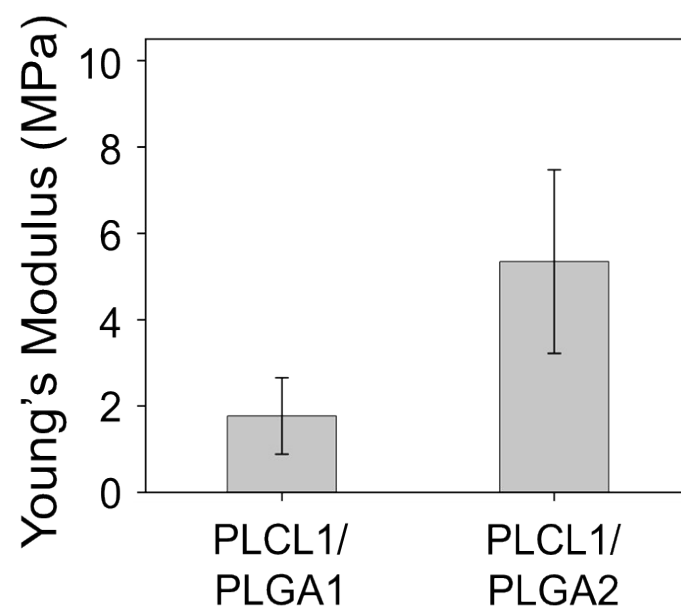


Fig. S2 Young's modulus of non-porous films (PLCL1/PLGA1 and PLCL1/PLGA2) measured using universal testing machine (UTM).

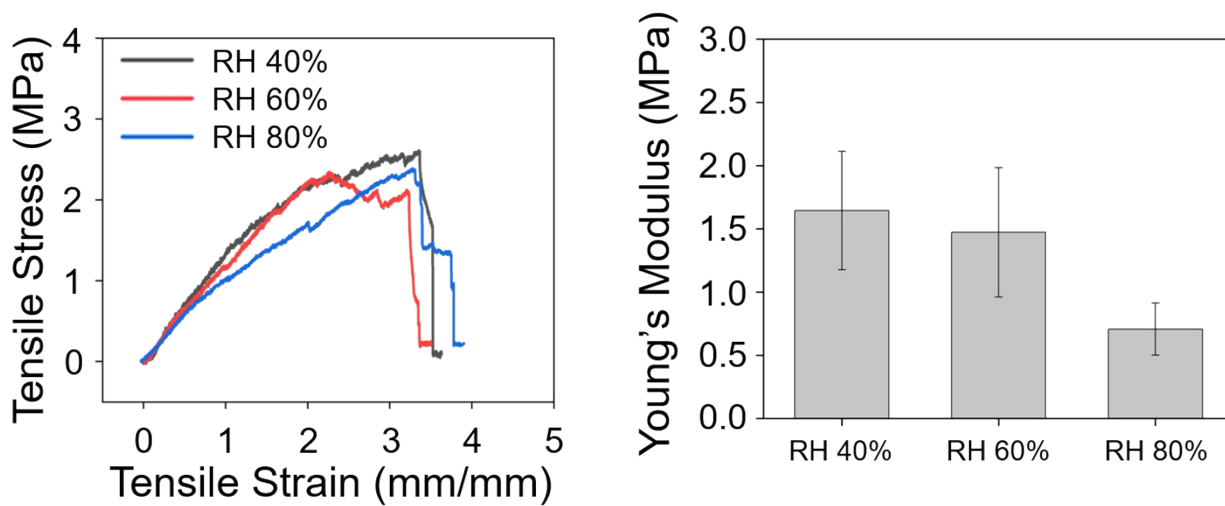


Fig. S3 Tensile stress and Young's modulus of IUPMs under different relative humidity conditions (40 %, 60 %, and 80 %) measured using universal testing machine (UTM).

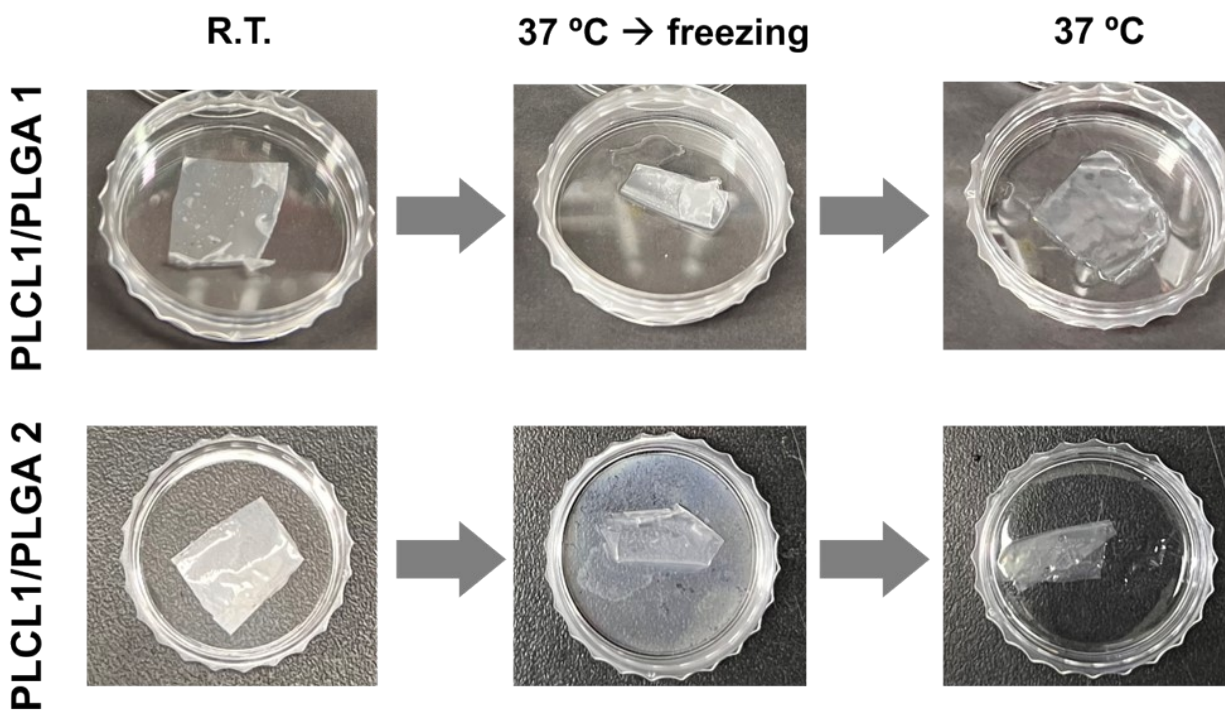


Fig. S4 Recovery properties of PLCL1/PLGA1 and PLCL1/PLGA2 blends. PLCL1/PLGA1 exhibits recovery at 37 °C, while PLCL1/PLGA2 does not show enough recovery behavior.