

## Supporting Information

### Anti-Fatigue, Self-Bonding, Adhesive Gels for Easy-to-Prepare 3D Stacking Flexible Electronics

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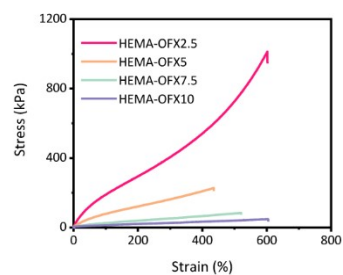


Figure S1. Tensile curves of HEMA-OFX gels.

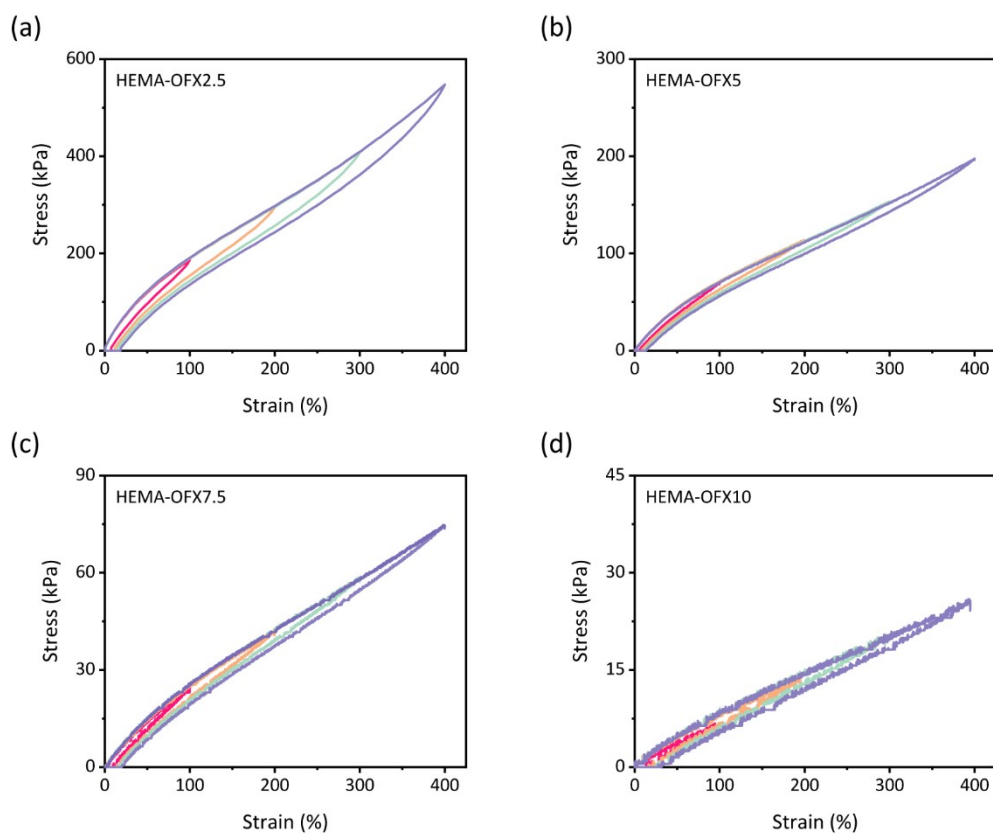


Figure S2. Cyclic stretching curves of HEMA-OFX gels.

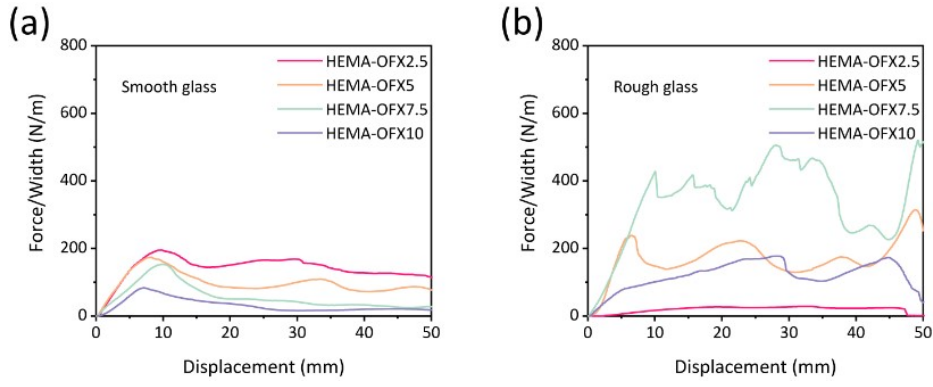


Figure S3. (a) Adhesion strength of HEMA-OFX gels on smooth and (b) rough glass surfaces.

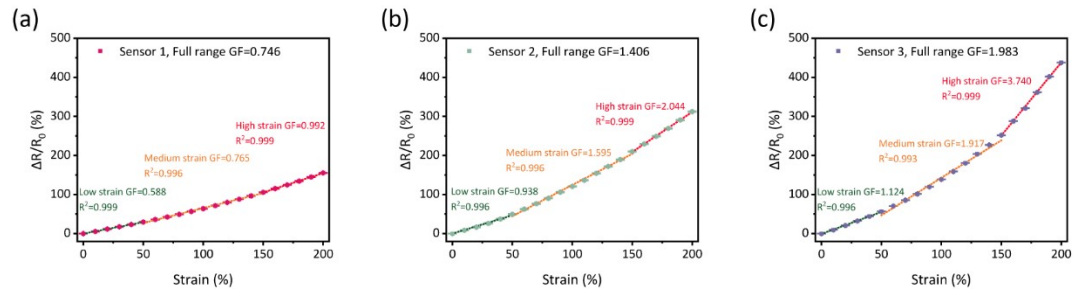


Figure S4. The strain sensing performance of sensors at different strain.

Table S1. Mechanical properties of HEMA-OFX gel.

Samples	Stress (kPa)	elongation at break (%)	Young's modulus (kPa)	Toughness (kJ/m <sup>3</sup> )
<b>HEMA-OFX2.5</b>	964.395	607.391	256.084	219.069
<b>HEMA-OFX5</b>	221.223	450.825	95.500	134.587
<b>HEMA-OFX7.5</b>	92.753	507.158	29.361	43.583
<b>HEMA-OFX10</b>	37.989	543.198	12.479	30.231

Table S2. Self-bonding and adhesive properties of HEMA-OFX gel.

Samples	Self-bonding strength (N/m)		Adhesion strength (N/m)		
	1 min	1 h	Pigskin	Smooth glass	Rough glass
<b>HEMA- OFX2.5</b>	169.563	405.027	2.660	148.116	23.005
<b>HEMA- OFX5</b>	64.163	257.861	12.448	93.775	177.828
<b>HEMA- OFX7.5</b>	40.235	98.009	40.295	49.964	368.430
<b>HEMA- OFX10</b>	3.182	41.178	18.395	27.035	141.542