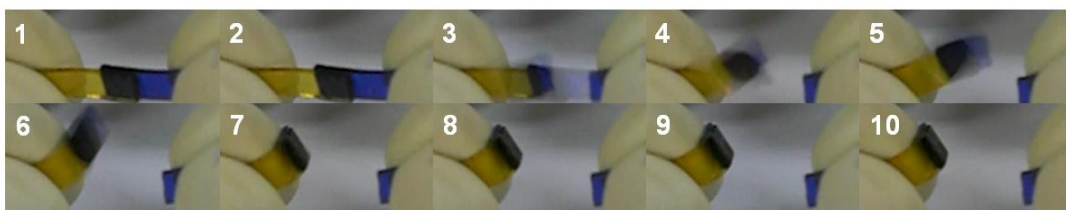


Supporting information for
Electrophoretic Adhesion of Stimuli-Responsive Hydrogels

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1. Microscopic images of tensile test.

a)



b)

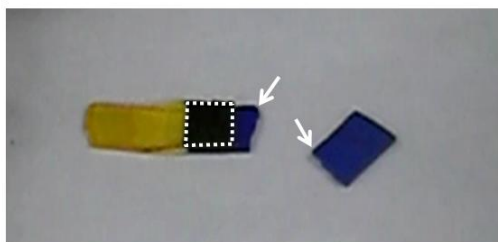


Figure S1 (a) Successive picture of tensile test of adhered hydrogels. (b) Microscopic image of broken hydrogels. Arrows are broken point and white square is adhesion area. PAA and PEI semi-IPNs were stained by methylene blue and methyl orange, respectively.

2. Adhesion and detachment of hydrogels.

Movie S1 shows adhesion and detachment of semi-IPNs by changing the polarity of the electric field. PAA and PEI semi-IPNs were stained by methylene blue and methyl orange, respectively. Two gels adhered when electric field was impressed in case of PEI-semi-IPNs on the anode and PAA semi-IPNs on the cathode, respectively. Detachment of adhered gels was observed by applying the inverse voltage.

3. End to end adhesion of gels

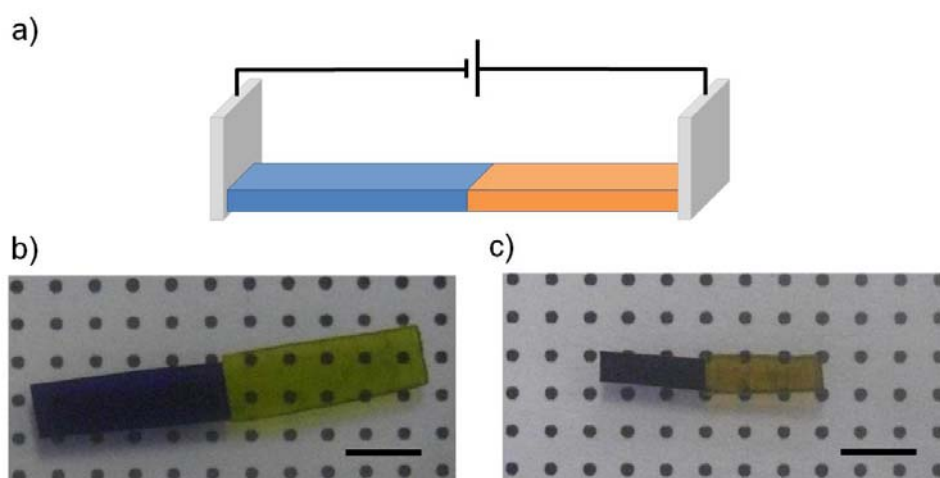


Figure S2 (a) Schematic illustration of adhesion of end to end of the PAA semi-IPNs (anionic) and PEI semi-IPNs (cationic). Microscopic image of adhered hydrogels prepared by electrophoresis at b) 20 and c) 40°C, respectively. PAA and PEI semi-IPNs were stained by methylene blue and methyl orange, respectively. All scale bars are 4 mm.