Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Electronic Supplementary Information (ESI)

Self-Healing Polymers and Composites for Extreme Environments

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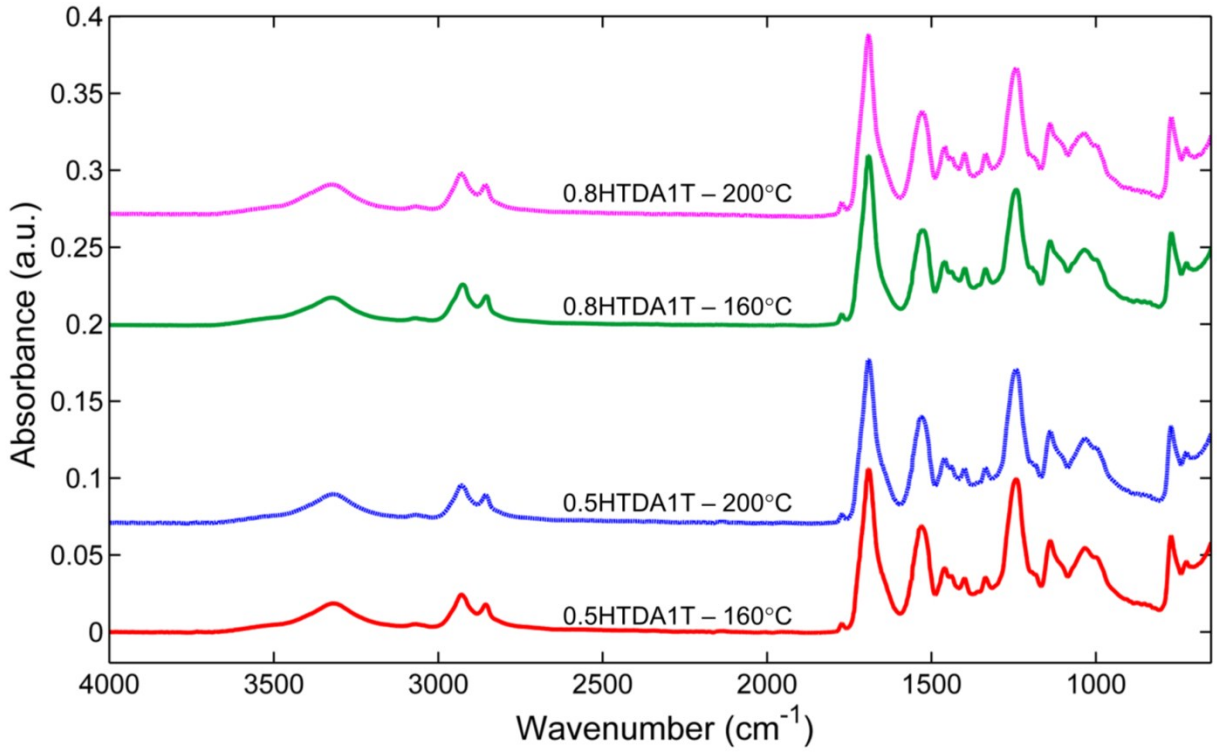


Figure S1: FTIR spectra of self-healing polymers before and after annealing at 200°C for 90 minutes.

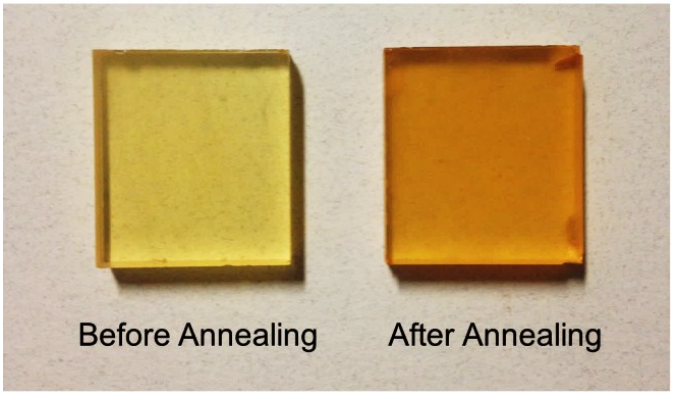


Figure S2. A distinct color change was observed after annealing of the 0.8HTDA1T polymer specimens at 160 °C for 20 hours in the nitrogen.

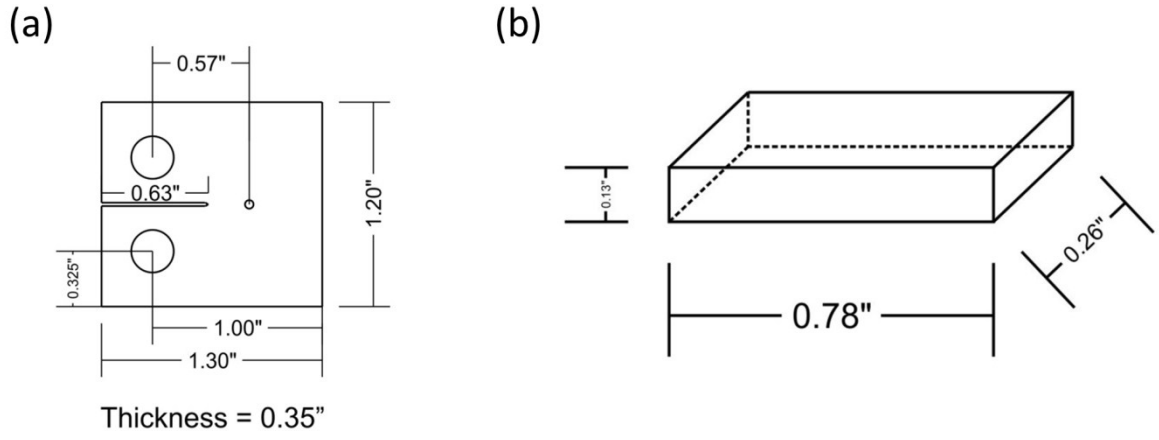
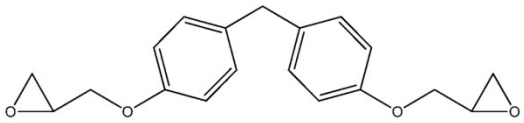


Figure S3: Schematic of the examined specimens with dimensions in inches: (a) compact tension test polymer specimen and (b) unidirectional fiber reinforced polymer specimens for short beam strength (SBS) testing.

(a)



(b)

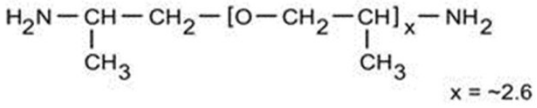


Figure S4: Chemical structures of the epoxy resin and curing agent: (a) EPON™ Resin 862 (Diglycidyl Ether of Bisphenol F) and (b) EPIKURE™ 3230 which is a difunctional primary amine curing agent.