

Self-healing and recyclable Polyurethane/Nanocellulose elastomer based on Diels-Alder reaction

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Table S1. Molecular weight and Polymer dispersity index(PDI) of EP-DA and PU-M.

Samples	Mn	Mw	PDI
EP-FA	7665	14277	1.86
PU-M	6314	12318	1.95

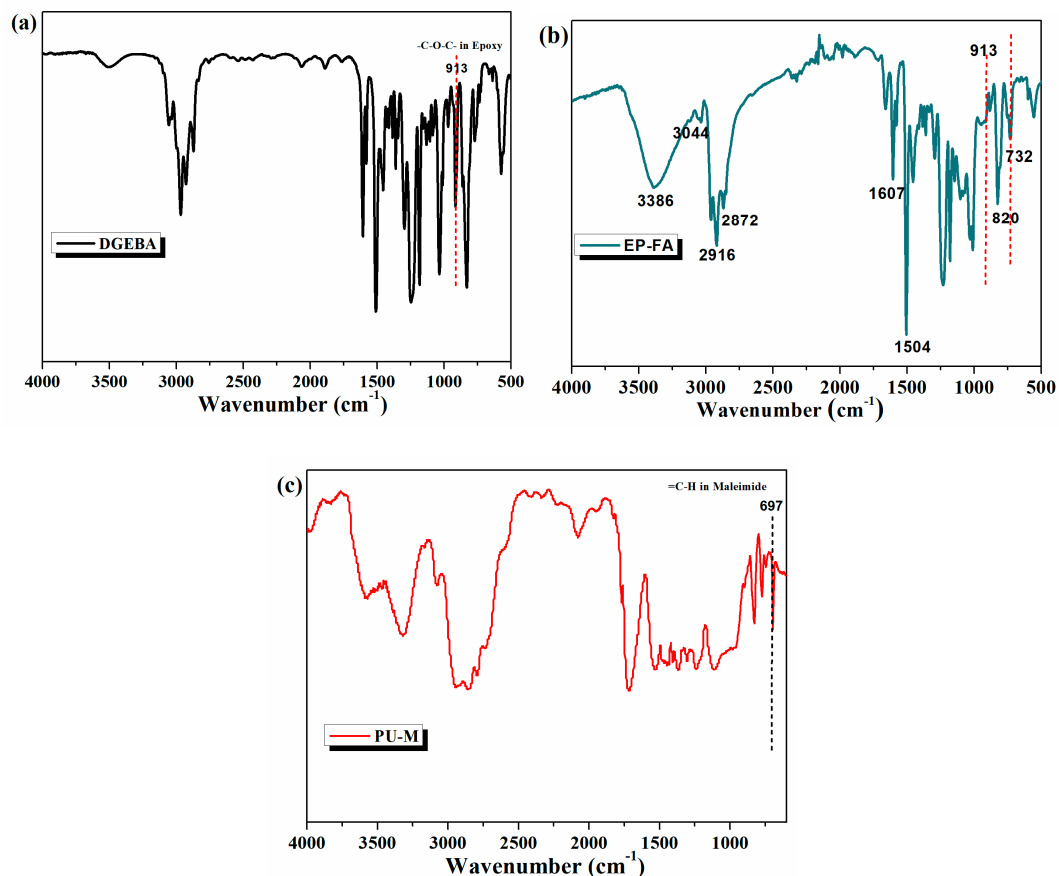


Figure S1 FTIR spectra of (a) DGEBA, (b) EP-FA and (c) PU-M

Table S2. Mechanical properties of samples.

Samples	Stress-at-break [MPa]	Young's Modulus [MPa]	Strain-at-break [%]	Toughness [MJ/m ³]
EPU-DA	10.88±0.34	1.79±0.18	544±4	35.29±0.52
EPU-DA-01CNF	12.20±1.31	0.84±0.02	1024±45	63.77±7.20
EPU-DA-03CNF	16.31±1.41	0.89±0.04	1258±100	97.07±11.07
EPU-DA-05CNF	17.19±1.23	0.96±0.07	1215±21	102.34±7.27
EPU-DA-07CNF	6.89±0.42	2.91±0.57	426±40	20.59±2.89
EPU-DA-re	10.36±1.71	1.56±0.12	554±75	33.09±8.34
EPU-DA-05CNF-re	20.14±1.69	1.26±0.09	1230±82	102.58±12.82
EPU-DA-RH	9.12±0.61	1.29±0.06	525±96	30.59±3.61
EPU-DA-05CNF-RH	16.78±2.28	0.85±0.08	1378±93	104.12±16.53

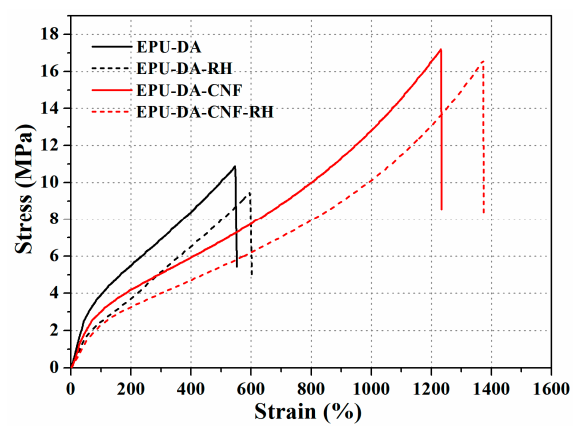


Figure S2 stress-strain curves of EPU-DA and EPU-DA-CNF before and after hydrothermal aging.