< Supplementary Information >

Preparation and characterization of isosorbide-based self-healable polyurethane elastomers with thermally reversible bonds

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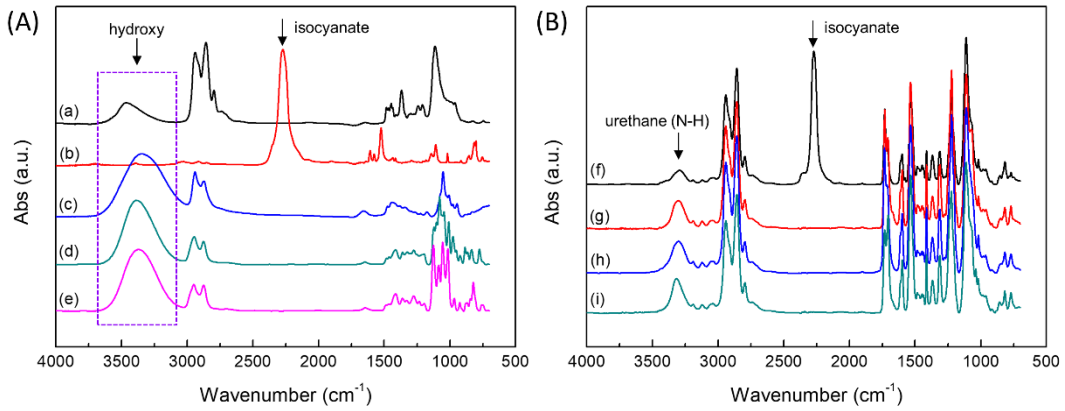

Figure S1. FT-IR spectra of raw materials(A), synthesized prepolymer and PUEs(B): (a) PTMEG; (b) MDI; (c) BD; (d) ISB; (e) IMN; (f) prepolymer; (g) BD-PU; (h) ISB-PU; (i) IMN-PU.

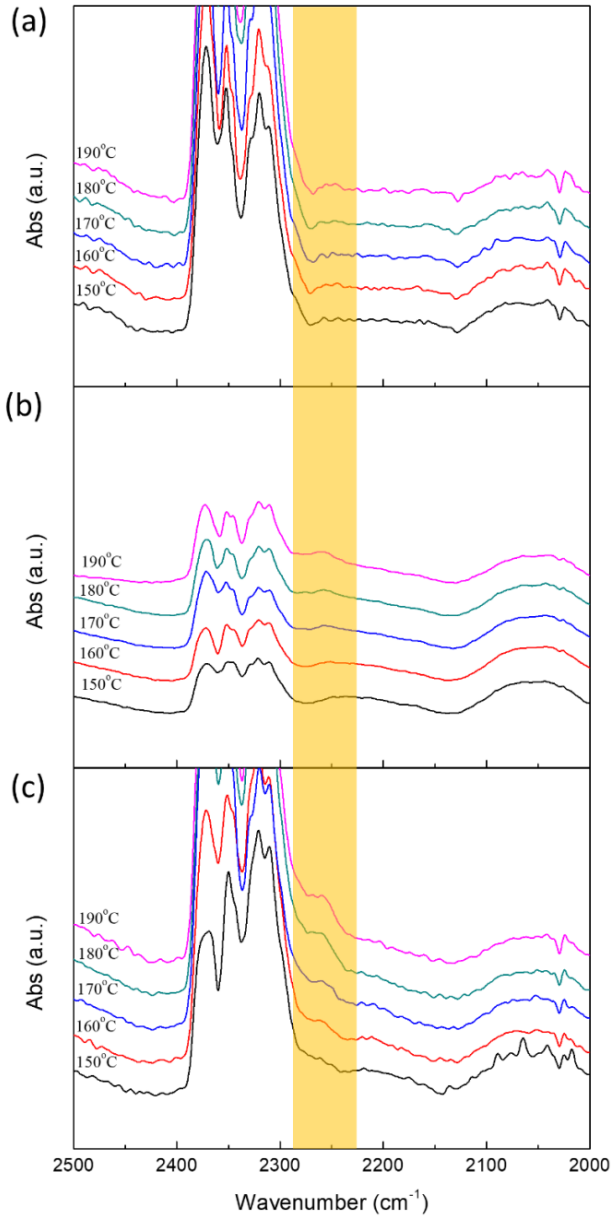

Figure S2. FT-IR spectra of PUEs at elevated temperatures: (a) BD–PU, (b) ISB–PU, and (c) IMN–PU. In FT-IR spectra of ISB-PU and IMN-PU, the peak intensities of absorbances due to isocyanate groups generated by the reversible urethane bods increased with heating while those of BD-PU did hardly.

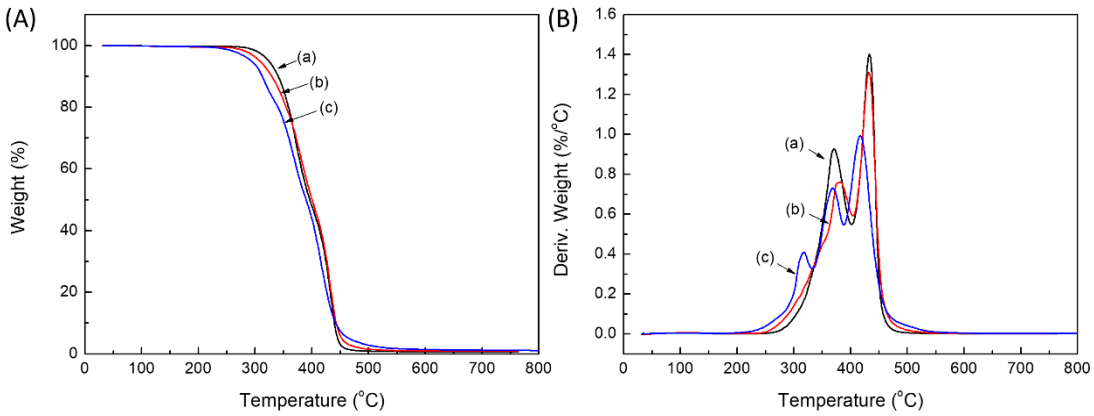

Figure S3. TGA thermograms and 1st derivative of TGA curve of PUEs: (a) BD–PU, (b) ISB–PU, and (c) IMN–PU.