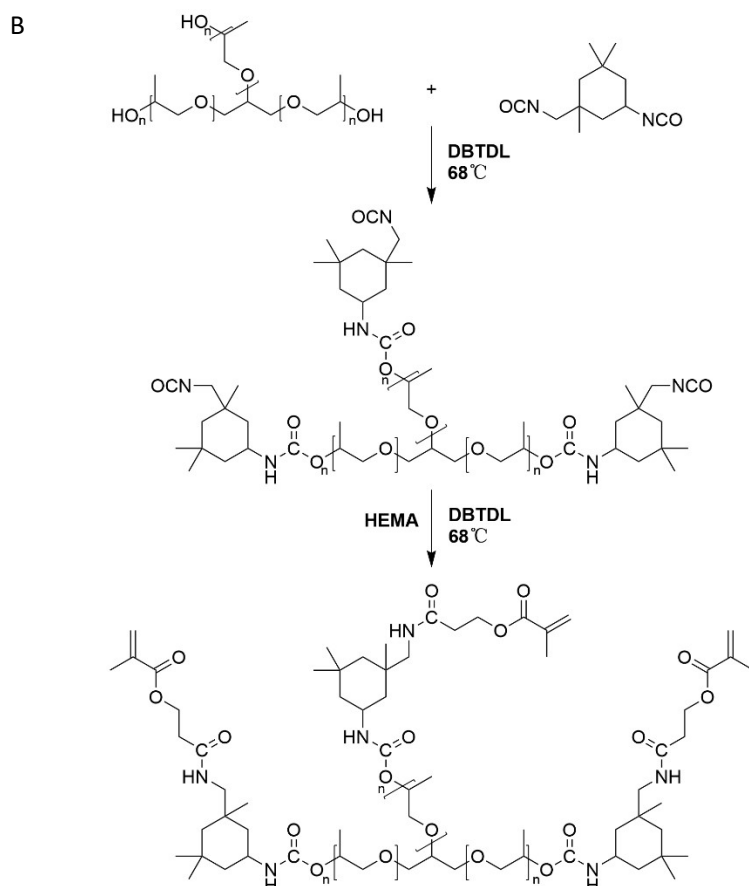
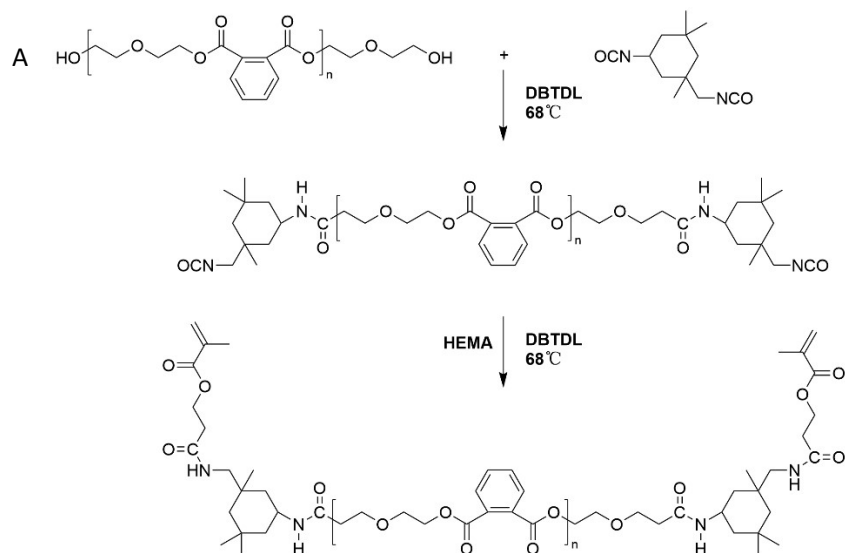


Supplementary information

Synthesis and characterization of PU

To synthesize polyurethane materials with appropriate elasticity, IPDI and HEMA were reacted in turn according to the conventional solution polymerization process. Finally, the PU product with C=C termination was obtained (Appendix Fig. 1).



Appendix Fig. 1 The main reaction processes to prepare PU based on (A) polyester polyol and (B) polyether polyol. The process involved in the synthesis of the polyester and the polyether with the NCO-terminated PU prepolymer and then C=C terminated PU. The mixture of polyurethane (polyester:polyether=mole ratios 8:2, 6:4, 4:6, and 2:8). DBTDL, dibutyltin dilaurate; HEMA, 2-hydroxyethyl methacrylate; and IPDI, isophorone diisocyanate.