

Supporting Information

Cyclic Tensile Experiment

The cyclic tensile test is carried out at room temperature in an Instron 5567 instrument. The sample is prepared following Chinese standard GB/T1040.1-2006. The tensile curves and the detailed recoverability are listed in Figure S1 and Table S1 respectively.

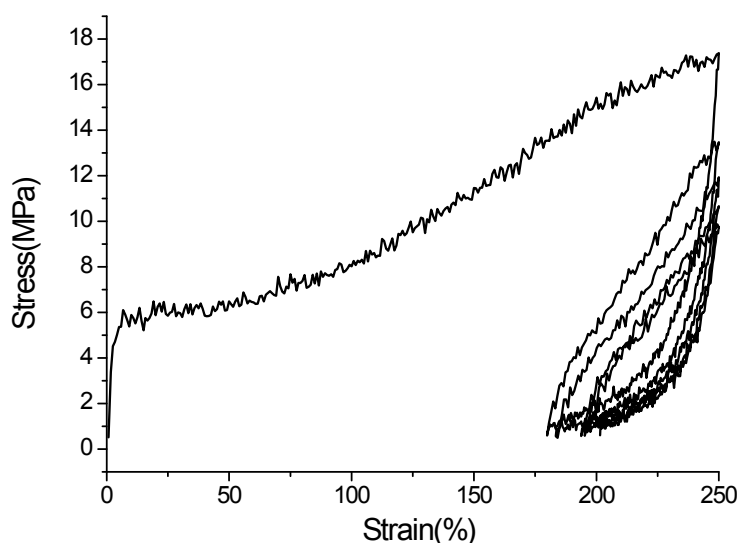


Figure S1. The cyclic tensile testing process of 250% strain for 5cycles of PU1700. Cyclic tensile testing was examined by stretching samples in a cyclic way with a maximum deformation of 250%. Dumbbell-shaped splines of 35 mm length, 2 mm width and ~0.5 mm thickness were stretched at a rate of 100 mm/min and returned at a rate of 50 mm/min for five cycles.

Table S1. The recovery rate of PU1700 in the cyclic tensile testing process.

$R_1(\%)$	$R_2(\%)$	$R_3(\%)$	$R_4(\%)$	$R_5(\%)$
26±2	85±5	86±3	92±2	90±5

