## **Supporting Information**

Ultratough ductile castor oil based hyperbranched polyurethane nanocomposite using functionalized reduced graphene oxide

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Figure S1. Solubility of f-RGO in different solvent after 2 months of storage.

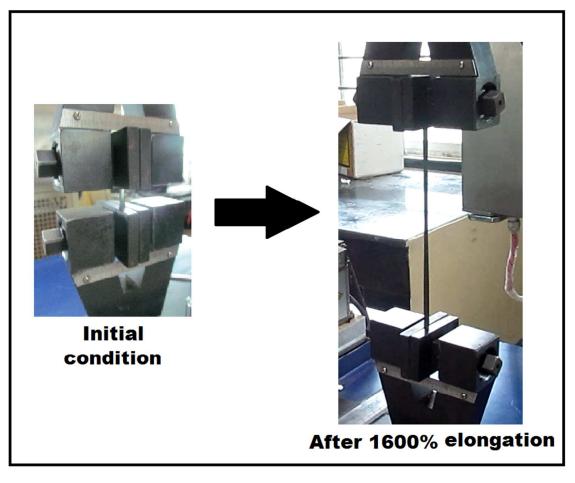
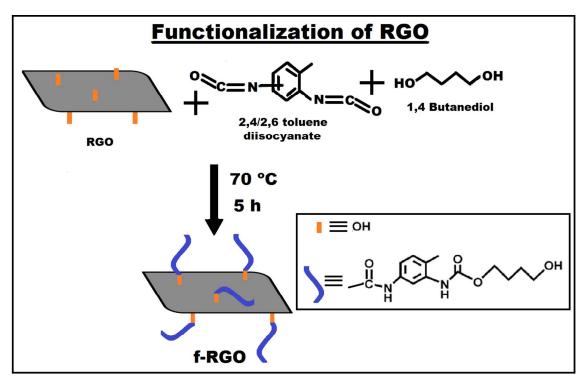
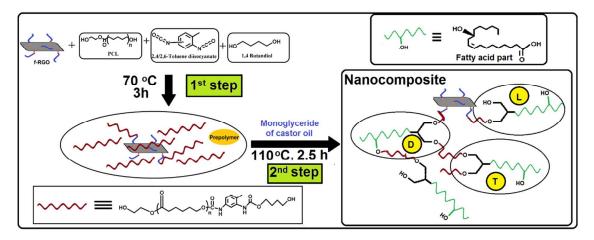


Figure S2. HPU/f-RGO2 film before and after stretching.



Scheme S1 Functionalization reaction scheme of RGO.



Scheme S2 Stepwise reaction scheme of HPU nanocomposite.

Sample	$T_m (^{\circ}C)$	Crystallinity (%)
HPU	48.4	27.62
HPU/f-RGO0.5	49.5	33.15
HPU/f-RGO1	50.1	35.14
HPU/f-RGO2	50.6	37.25

Table S1 Crystalinity of HPU and HPU/f-RGO nanocomposites