Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Improving Crystallization and Processability of PBS via Slightly Cross-linking

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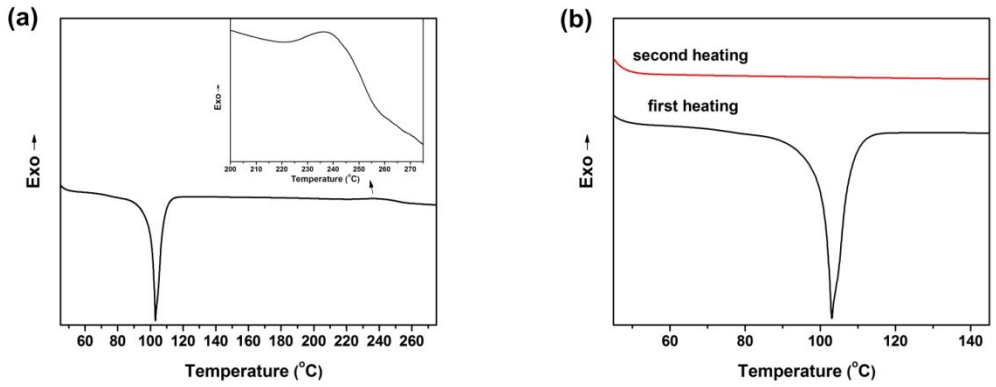

Fig. S1. DSC (a) first heating scan and (b) the first and the second heating scan for monomer DTS

The sample (5 mg) was first heated to 280 °C (the first heating scan) at the heating rate of 20 °C min^{-1}, and then cooled to 40 °C at a cooling rate of 20 °C min^{-1} (cooling scan), and finally the sample was heated again to 150 °C at the heating rate of 20 °C min^{-1} (the second heating scan).

From Figure S1, we can obviously see that there was a clear melting peak at 103 °C and an exothermic peak around at the temperature range of 225 °C and 255 °C in the first heating scan of DTS. While in the second heating scan the melting peak was disappeared. This illustrates that during the first scan DTS cross-linked at 225 °C- 255 °C temperature region due to the existence of alkynyl group, which made its melting peak vanish.

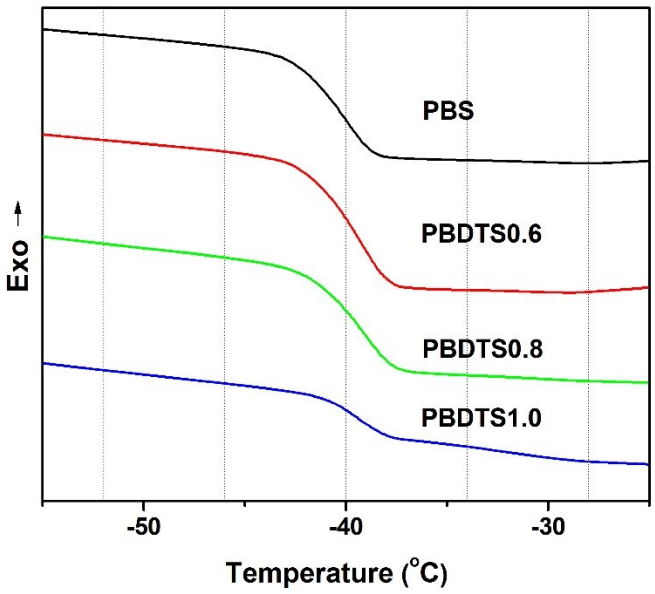

Fig. S2. DSC curves (from -50 to 30 °C) of second heating run of neat PBS and PBDTS*x* at a rate of 10 °C min^{-1}.

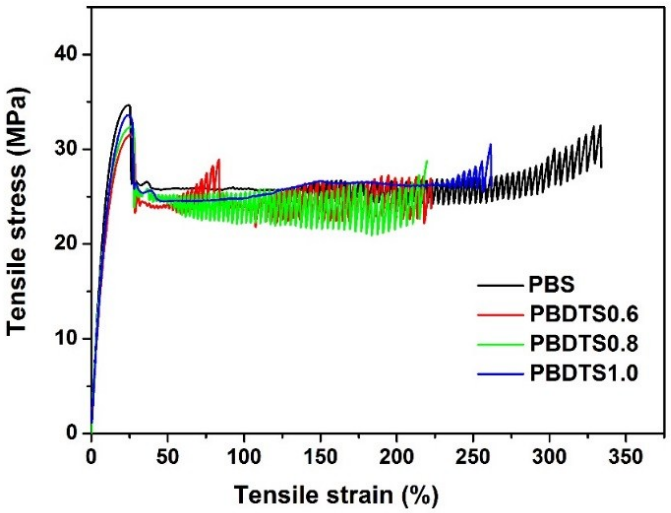

Fig. S3. The stress-strain curves of neat PBS and PBDTS*x*.