Supporting Information for
Thermal and Rheological Analysis of Polystyrene-Grafted Silica Nanocomposite

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Thermogravimetric Analysis and Small-Angle X-Ray Scattering

The thermogravimetric analysis (TGA) of PNC-35k, shown in Figure S1, is performed using a TGA Q500 from TA instruments under N₂ atmosphere on heating at 10 K/min from 25 to 800 °C. The TGA of PNC-112k, shown in Figure S2, is performed using a Mettler Toledo TGA 2 under air atmosphere on heating at 1 K/min from 25 to 650 °C. Small angle x-ray scattering (SAXS) of PNC-35k, shown in Figure S3, is performed under vacuum using a Rigaku MicroMax-007HF high-intensity microfocus rotating anode x-ray generator. A small mass of sample is secured onto the sample stage with a silver behenate sticker. Data are obtained for q values of 0.01 to 0.10 Å⁻¹.

Figure S1: TGA of PNC-35k
Figure S2: TGA of PNC-112k

Figure S3: SAXS of PNC-35k.