RSC Advances Supporting Information

Effect of uniaxial pre-stretching on microstructure and mechanical properties of poly[(ethylene oxide)-block-(amide-12)]-toughened poly(lactic acid) blend

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Experimental

Dynamic mechanical thermal analysis (DMTA) was performed with a dynamic mechanical analyzer SDTA861e (Mettler Toledo) in the tensile mode. The samples with gauge dimensions of 9×4×1 mm³ were used. The dynamic loss factor (tanδ) was determined at a frequency of 1 Hz and a heating rate of 3°C/min as a function of temperature from -100 to 140°C.

Supporting Figure S1. Schematic figure for preparing analysis specimens.
Supporting Figure S2. DMTA results (tanδ versus temperature) of neat PLA, PEBA, and PLA/20wt% PEBA blend.
Supporting Figure S3. Peak fit treatment of the WAXD profiles of (a) undrawn PLA/PEBA blend, ps-PLA/PEBA blends pre-stretched at 60°C with PSR being (b) 1.0 and (c) 2.0.