

Supplementary Materials: Super-Toughed PLA Blown Film with Enhanced Gas Barrier Property Available for Packaging and Agricultural Applications

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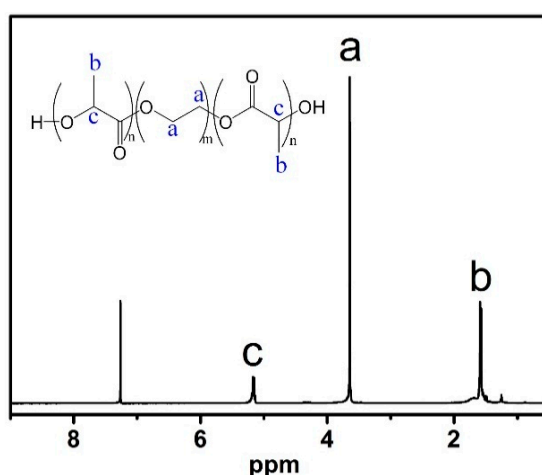


Figure S1. ^1H NMR spectrum of lab-made DPD (400 MHz, Chloroform-d).

The M_n of PEG segment applied was 4000 g/mol, and the PLLA segment was calculated to be 4135 g/mol with NMR results (AV III HD 400 MHz, Bruker Company, Leipzig, Switzerland).

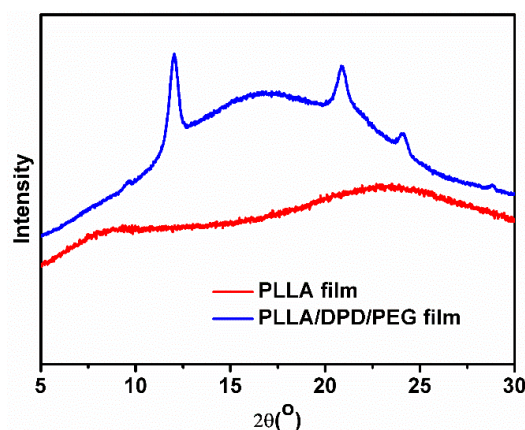


Figure S2. The XRD spectra of PLLA and PLLA/DPD/PEG-10 films.

XRD (ultima-IV, Rigaku, Tokyo, Japan) profiles was also added to illustrate SC in blown films. The PLLA film had no characteristic diffraction peaks because of its amorphous structure. However, the PLLA/DPD/PEG film showed obvious SC crystals' characteristic diffraction peaks ($2\theta = 12^\circ, 21^\circ, 24^\circ$).



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