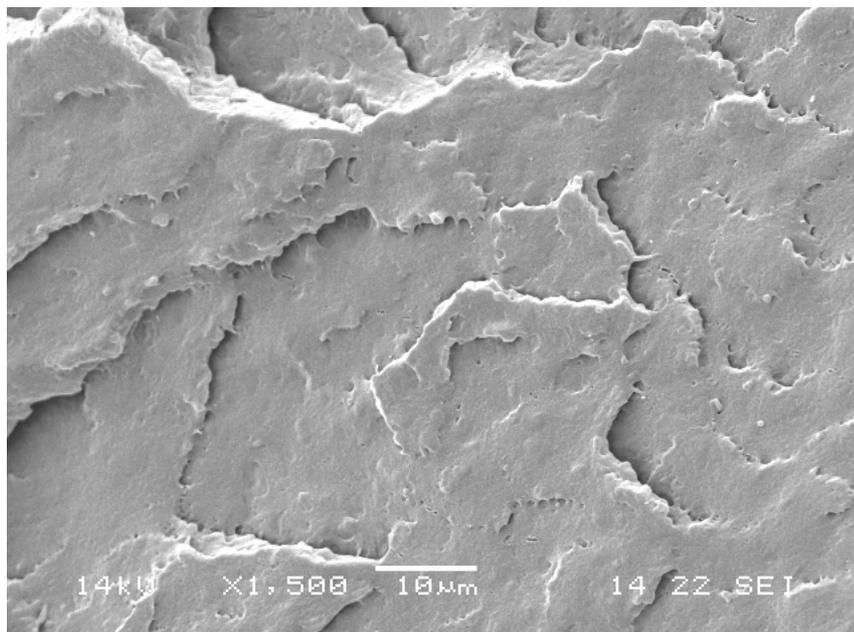


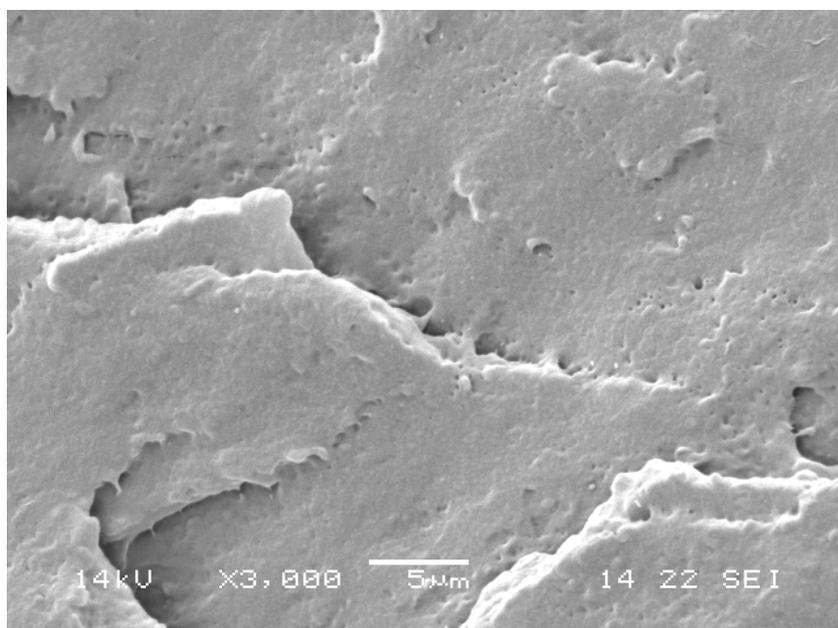
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**Supporting information**

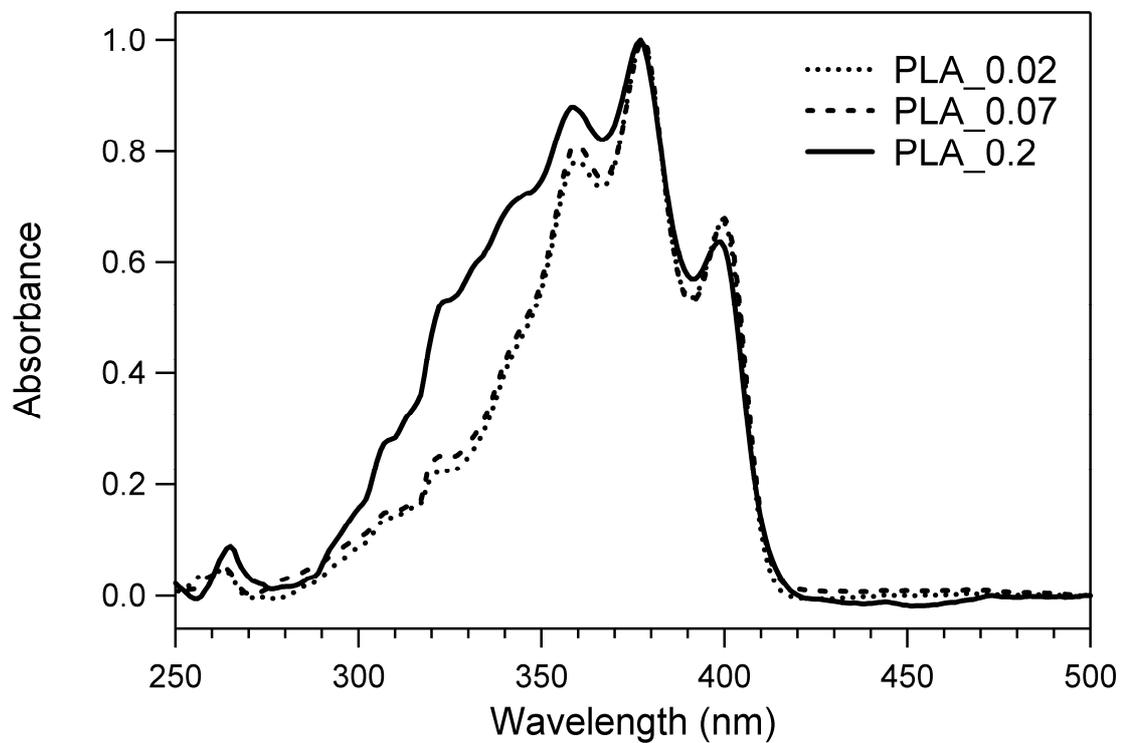
**Figure S1.** Scanning electron micrograph of a PLA85PBS15 blend



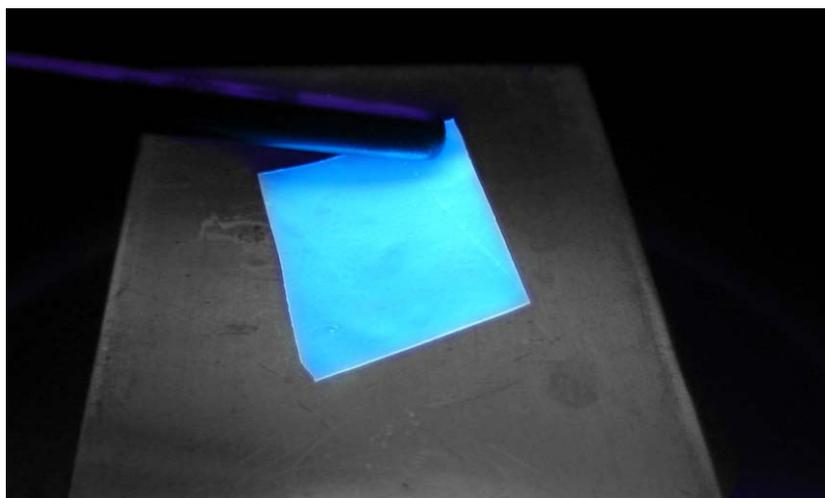
**Figure S2.** Scanning electron micrograph of a PLA85PBS15\_BBS\_0.2 film containing the 0.2 wt % of BBS



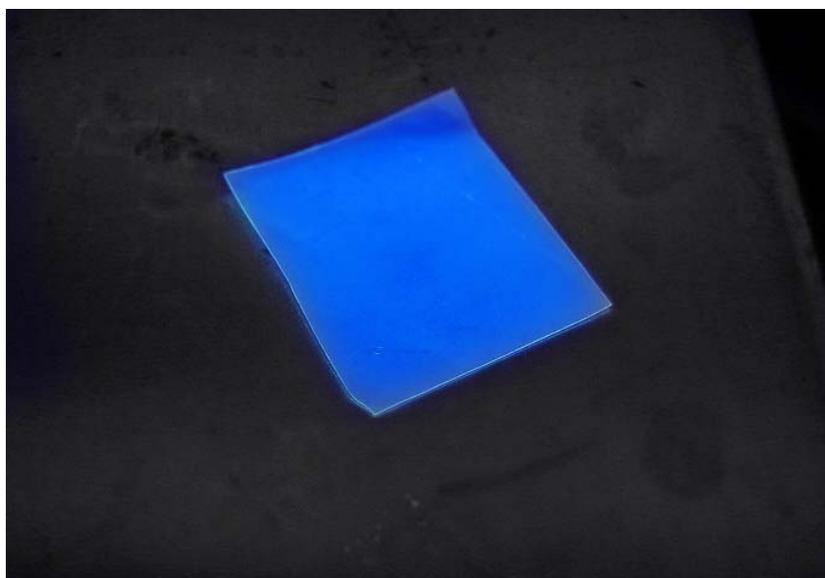
**Figure S3.** UV-Vis absorption spectra of PLA\_BBS films as a function of dye concentration, expressed as the wt% of BBS molecules with respect to the polymer matrix (the spectra are normalized to the intensity of the isolated BBS molecular peak (380 nm))



**Figure S4.** Pictures of a thermally stressed PLA85PBS15\_BBS\_0.07 film taken under illumination at 366 nm at room temperature (a) and at  $\sim 140^{\circ}\text{C}$  over a hot plate.



(a)



(b)

**Figure S5.** DSC isothermal (100°C) crystallization curve of a PLA85PBS15\_BBS\_0.07 film

