Supplementary data

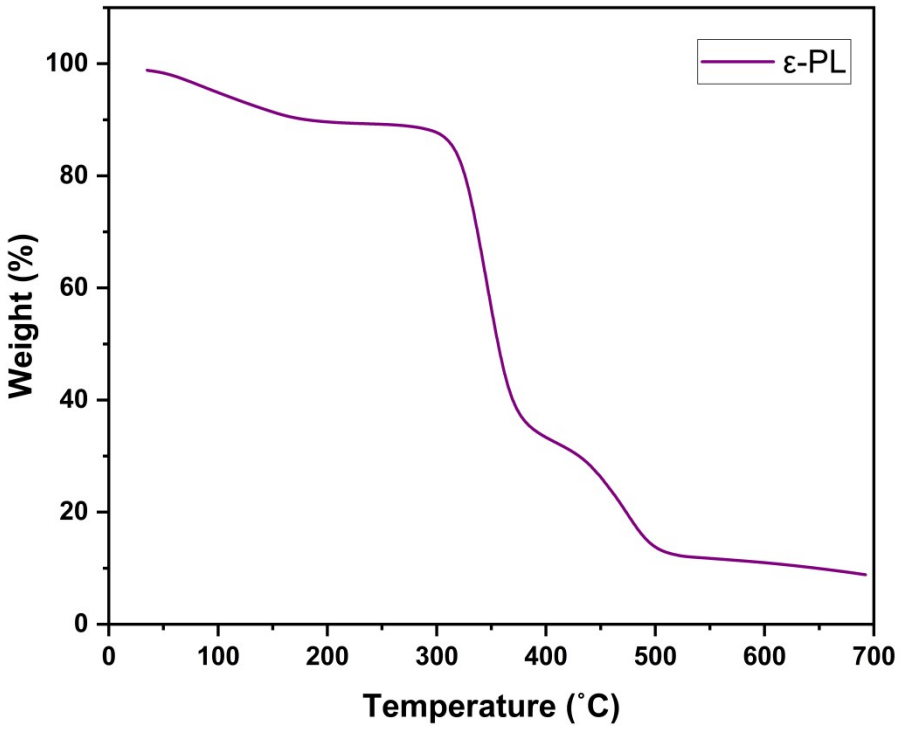

Fig.S1 Thermogravimetric analysis (TGA) curve of ε-PL. The TGA curve represents the thermal stability of ε-PL, indicating initial weight loss due to the evaporation of moisture followed by major degradation starting at around 300 ˚C.

Table.S1 Correlation coefficients (R^2) of Higuchi, first-order, and zero-order kinetic models applied to the release of ε-PL from PLA/PBAT blend films with different ε-PL contents (1–5 wt %).

Sample	Zero order (R^2 value)	First order (R^2 value)	Higuchi model (R^2 value)
PLA/PBAT blend + 1wt% ε-PL	0.95	0.93	0.98
PLA/PBAT blend + 2wt% ε-PL	0.91	0.93	0.96
PLA/PBAT blend + 3wt% ε-PL	0.88	0.84	0.96
PLA/PBAT blend + 4wt% ε-PL	0.96	0.89	0.97
PLA/PBAT blend + 5wt% ε-PL	0.93	0.91	0.96