Supporting Information

Effect of Glycerol Stearates on the Thermal and Barrier Properties of Biodegradable Poly(butylene Adipate-co-terephthalate)

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Table S1. Details of the molecular models used in this work and calculated solubility parameters of different samples.

Samples	Number of repeat units	Chains	Cell volume ($Å^3$)	Solubility Parameter ($(J/cm^3)^{0.5}$)	Solubility Parameter in reference ($(J/cm^3)^{0.5}$)
PBAT	40	4	48784.4	19.6	21.9[1]
GMS	1	60	50437.2	20.2	-
GTS	1	40	49463.2	17.5	-

Table S2. Contact angle of PBAT and its blends with different modifiers (data were recorded after the sufficient relaxation of samples).

Samples	Contact Angle (°)
Neat PBAT	91.8±2.3
PBAT/GMS 1wt%	92.2±2.6
PABT/GMS 3wt%	93.1±7.1
PABT/GMS 5wt%	107.2±6.4
PBAT/GMS 7wt%	109.5±3.8
PABT/GTS 1wt%	111.0±0.4
PABT/GTS 3wt%	112.3±0.5
PABT/GTS 5wt%	112.9±0.8
PABT/GTS 7wt%	113.1±1.1

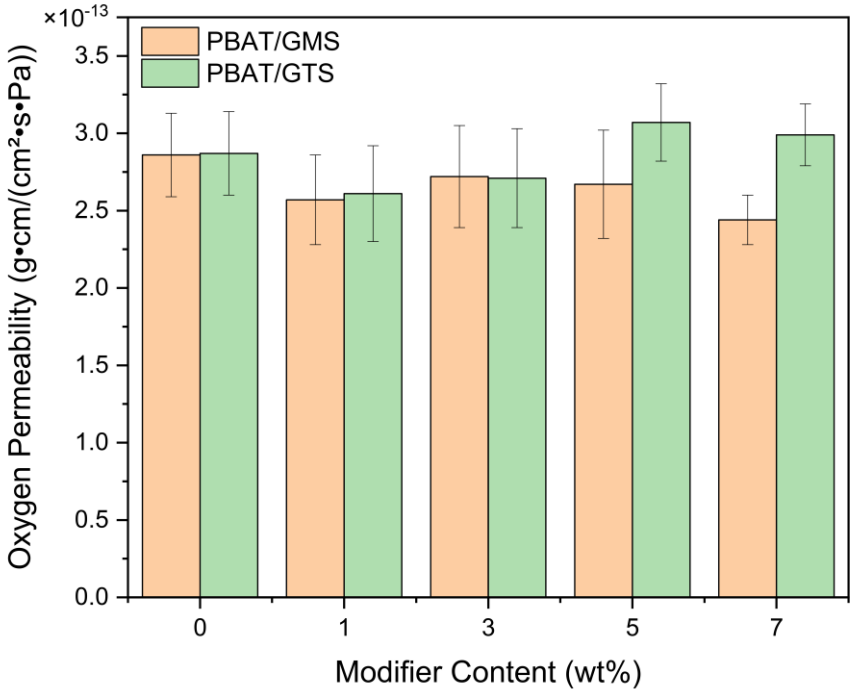


Figure S1. Oxygen permeability of PBAT and its blends with different modifiers.

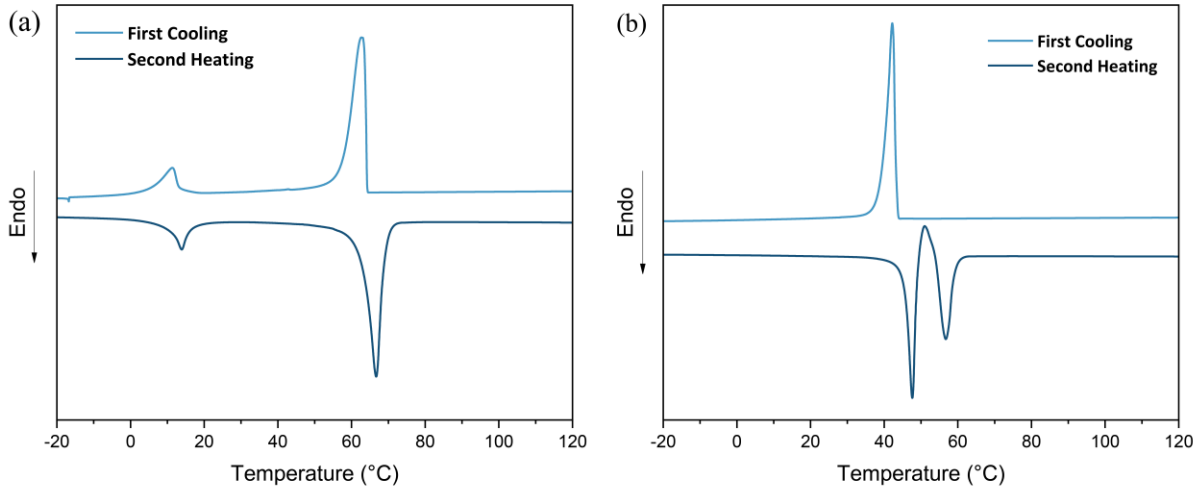


Figure S2. DSC thermograms of GMS (**a**) and GTS (**b**).

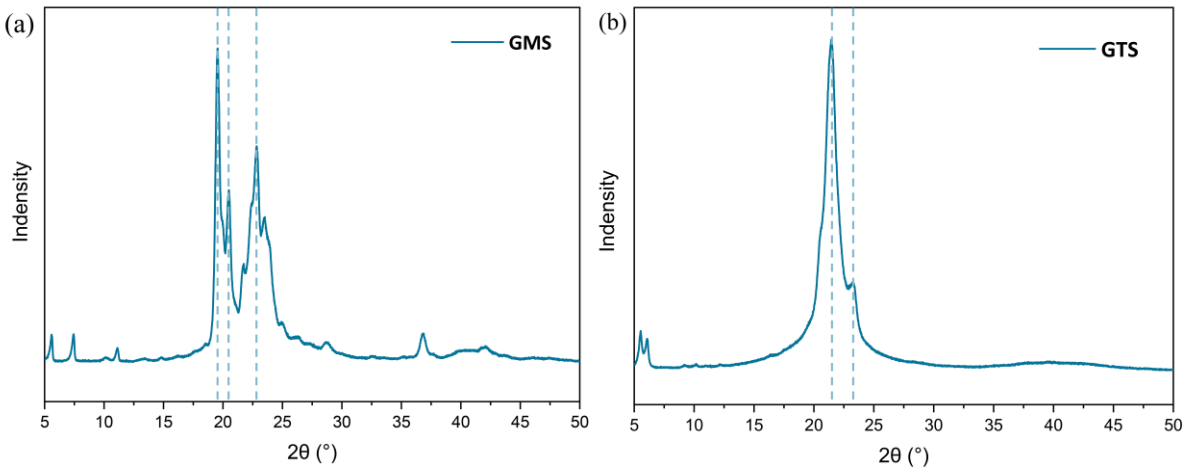


Figure S3. X-ray diffractograms of GMS (**a**) and GTS (**b**).

References

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