

Supplementary Material:

Table S1: ¹H NMR peak integrals and percentage of –OH terminal groups in PCLT and PCLT-diacid pre-polymers

Material	H ^a (δ = 4.0 ppm)	H ^{a'} (δ = 3.6 ppm)	Terminal –OH groups (%)
PCLT	9.8	3.6	27.0
Pre-polymer PCLT-Seb1	10.4	1.9	15.2
Pre-polymer PCLT-Suc1	11.5	1.6	12.0
Pre-polymer PCLT-Seb3	9.6	0.2	1.9
Pre-polymer PCLT-Suc3	13.7	0.3	2.4

Table S2: ¹H NMR peak integrals and percentage of –OH terminal groups in PPC and PPC-PCLT co-polymers

Material	H ^b (δ = 5.0 ppm)	H ^d (δ = 4.9 ppm)	Terminal –OH groups (%)
PPC	11.6	1.5	11.8
CP-Seb1	11.8	1.2	9.0
CP-Suc1	11.2	1.1	8.9
CP-Seb3	11.0	1.0	8.6
CP-Suc3	12.0	1.0	8.0

Table S3: Tensile and recovery data of pure PPC and PPC-PCLT co-polymers

Material	Young's modulus (MPa)	Yield strength (MPa)	Tensile strength (MPa)	Elongation at break (%)	Permanent deformation (%)
PPC	0.93 ± 0.31	0.22 ± 0.08	0.22 ± 0.05	4260 ± 96	-0.04 ± 0.02
Co-polymer PCLT-Seb1	58.3 ± 6.1	1.88 ± 0.34	1.85 ± 0.42	561 ± 57	23.6 ± 1.1
Co-polymer PCLT-Suc1	55.8 ± 4.7	1.46 ± 0.57	1.93 ± 0.29	1290 ± 85	17.6 ± 0.9
Co-polymer PCLT-Seb3	23.8 ± 3.2	1.02 ± 0.23	1.16 ± 0.33	1408 ± 63	21.7 ± 1.3
Co-polymer PCLT-Suc3	28.3 ± 4.4	1.27 ± 0.20	1.43 ± 0.10	702 ± 49	19.8 ± 0.9

Table S4: Thermal transitions of PPC and PPC-PCLT co-polymers

Material	T_g (PPC)	T_δ (PPC)	T_γ (PPC)	T_β (PPC)	T_g (PCLT)	T_m (PCLT)
PPC	37	-75	-38	-28	-	-
Co-polymer PCLT-Seb1	46	-80	-35	-21	-60	9
Co-polymer PCLT-Suc1	41	-82	-45	-26	-68	3
Co-polymer PCLT-Seb3	43	-87	-44	-25	-50	3
Co-polymer PCLT-Suc3	42	-86	-38	-21	-67	6