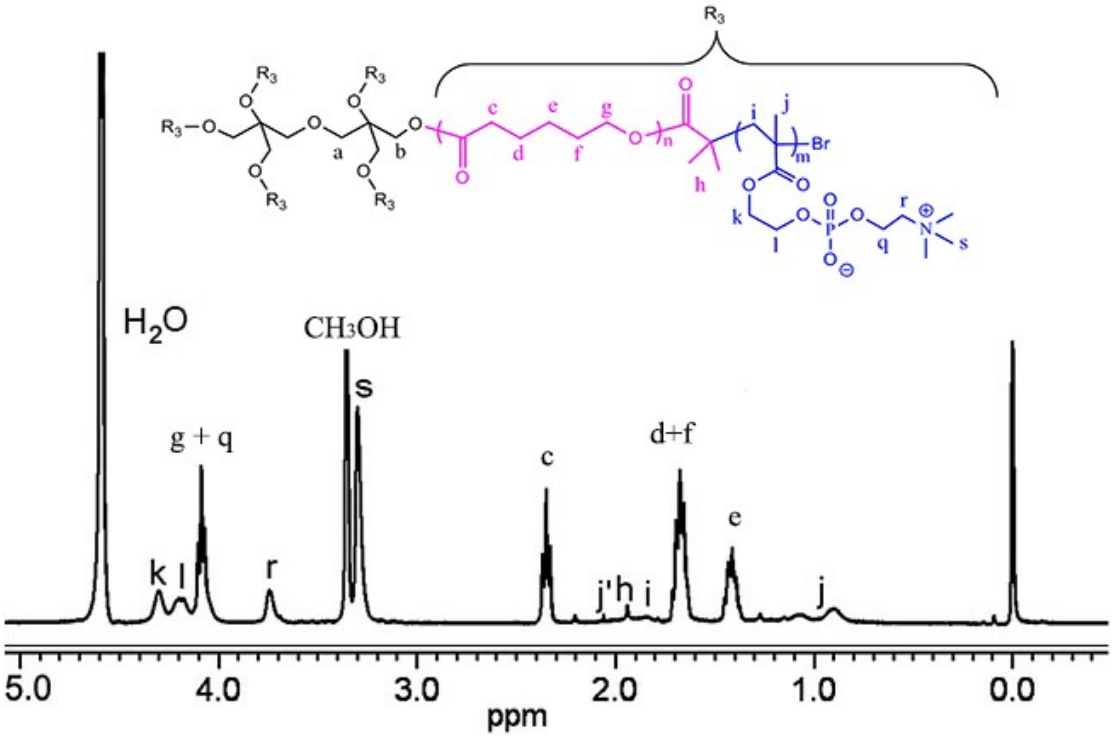

Figure S1 ^{1}H NMR (400 MHz) of 6sPCL$_{80}$-PMPC$_{20}$ in the mixed solvent of $CDCl_3$ and CD_3OD (2:1 v/v).

The Mn of the polymer is obtained by ^{1}H NMR spectrum. When the polymer is abbreviated as 6sPCL$_n$-PMPC$_m$ (the subscripts n and m denote the number average degree of polymerization), the Mn of the polymer can be calculated by the formula below,

$$M_n = M_i + 6 \times (n \times M_{CL} + m \times M_{MPC})$$

Where M_i, M_{CL} and M_{MPC} denote the relative molecular mass of initiator, ε-caprolactone and 2-methacryloyloxyethyl phosphorylcholine, respectively. The number average degree of polymerization i.e. n and m are obtained by ^{1}H NMR spectra.

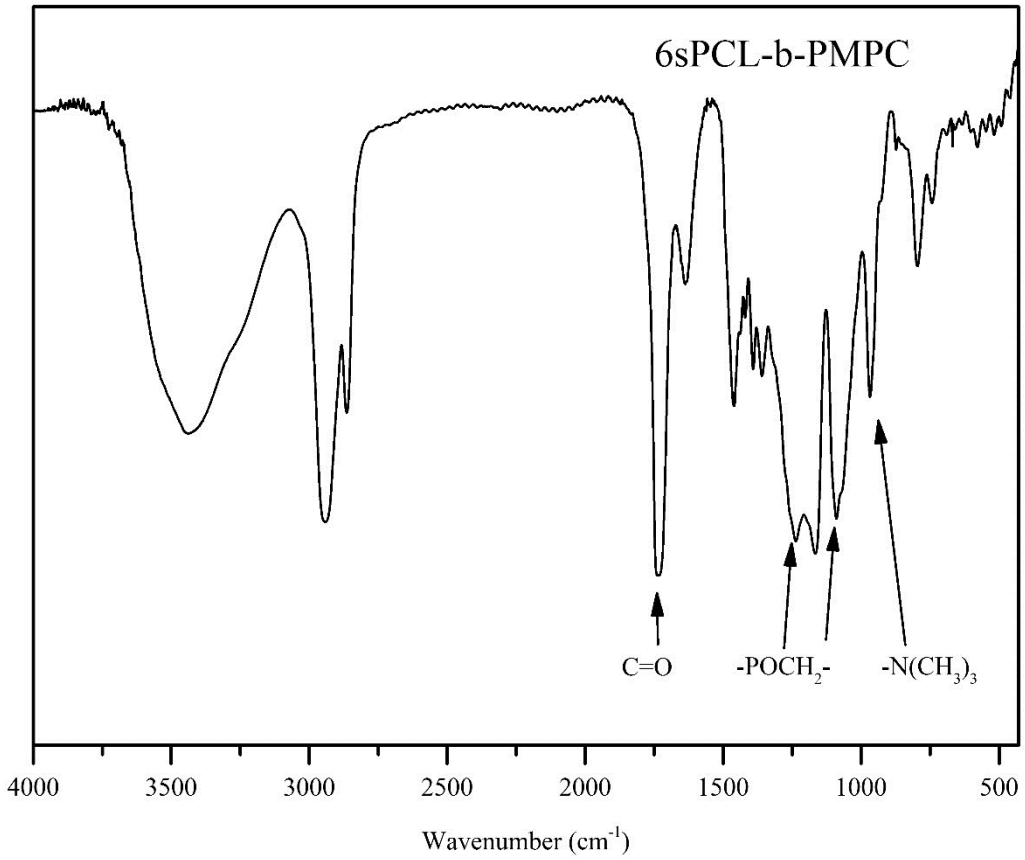

Figure S2 FT-IR spectra of $6sPCL_{80}$-$PMPC_{20}$.

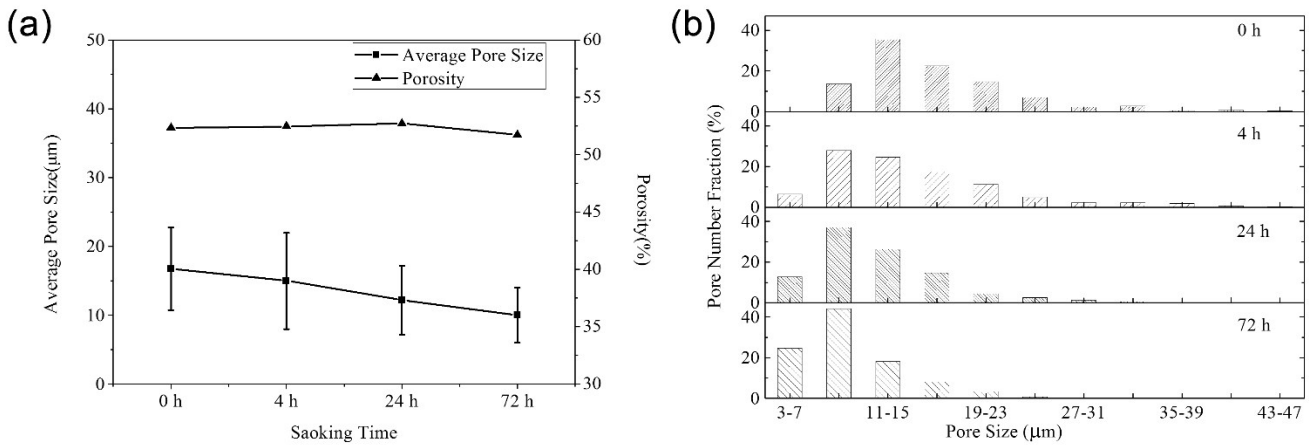

Figure S3 (a) Average pore size, porosity and (b) normalized pore size distribution of porous 6sPCL$_{80}$-PMPC$_{20}$ films after soaking in water for diffterent time. The films were prepared using the mixed solvent of THF and methanol (R = 2), the preparation process temperature T_1 = 10 ^{o}C.

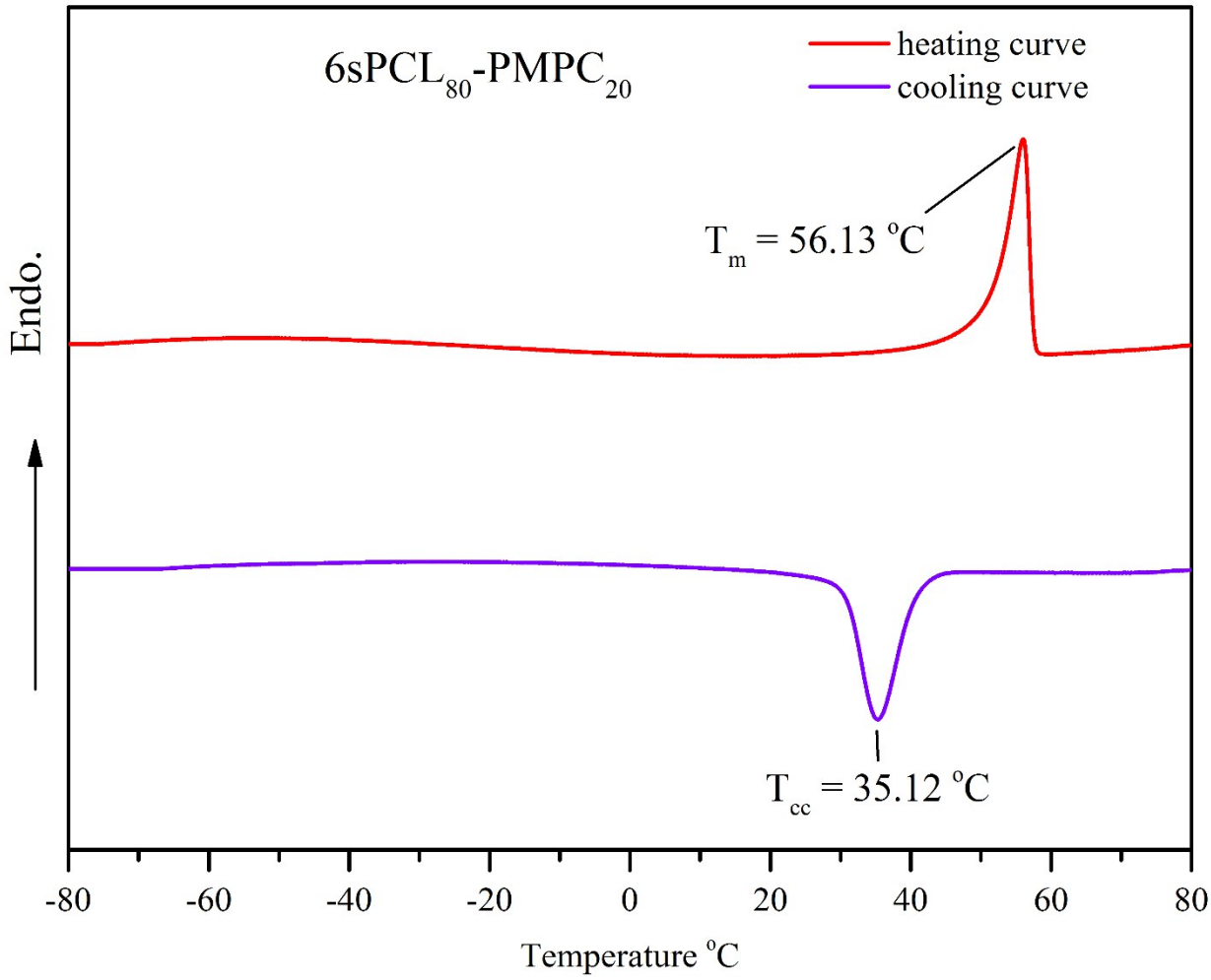

Figure S4 DSC curves of $6sPCL_{80}$-$PMPC_{20}$. A PerkinElmer Instruments differential scanning calorimeter DSC 8500 equipped with a cooling apparatus was used. The nitrogen gas flow rate was 30 ml min^{-1}. The sample was heated to 80 °C, held at 80 °C for 10 min and then cooled to -80 °C at a rate of 5 °C min^{-1} (first cooling run). The sample was held at -80 °C for 10 min and then heated to 80 °C at 5 °C min^{-1} (first heating run).

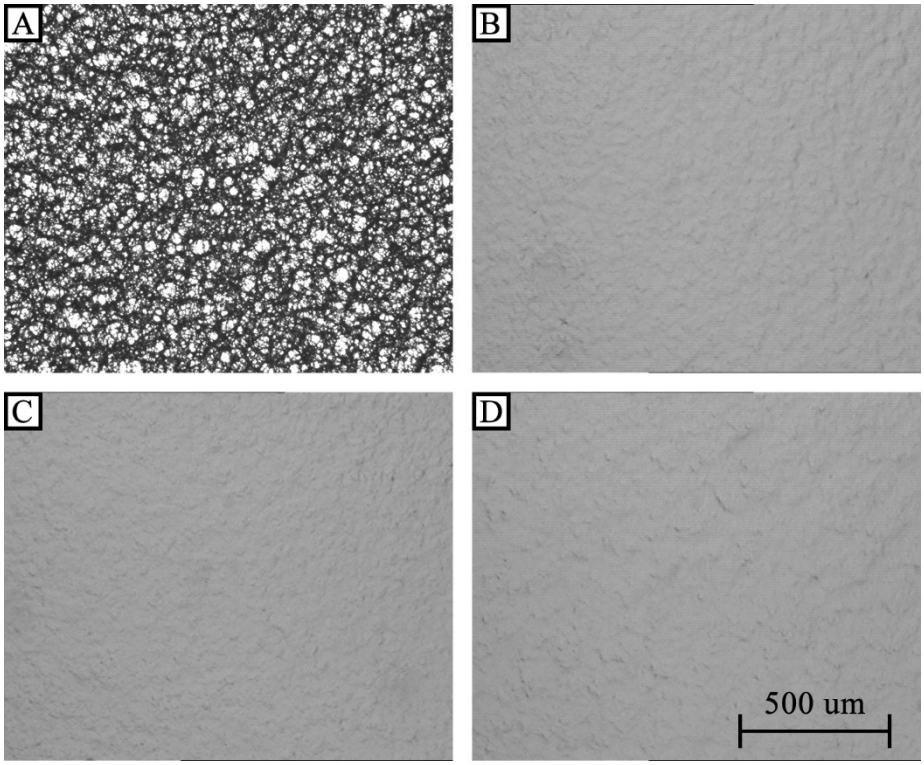

Figure S5 Optical microscope images of the film morphology of 6sPCL$_{80}$-PMPC$_{20}$ dissolved in different mixed solvent. The preparation process temperature is T_1 = 10 ^{o}C and the solution concentration is 10 mg/mL (A: R = 2; B: R’ = 1; C: R’ = 2; D: R’ = 3; R is the volume ratio of THF to methanol, and R’ is the volume ratio of DCM to methanol).