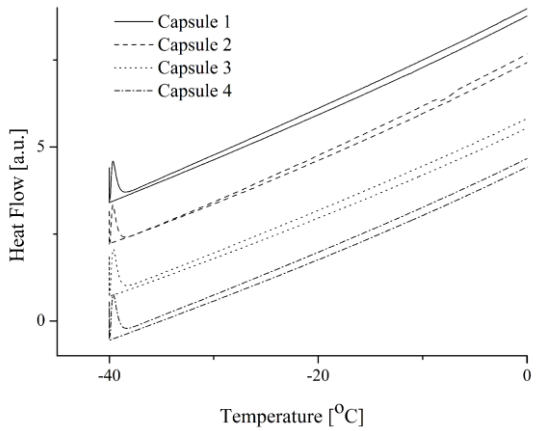
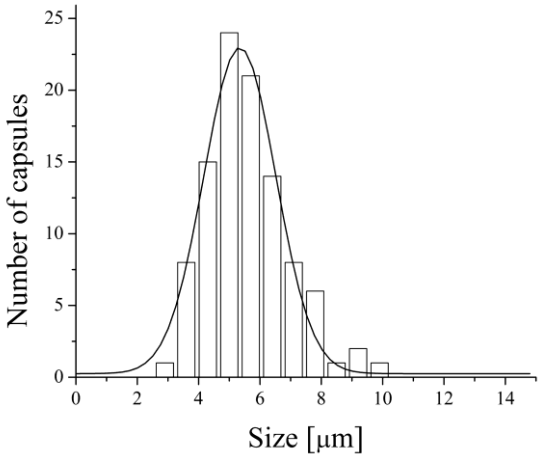
Supporting Information

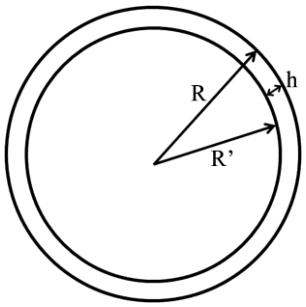


S1. DSC graph (endo up) of the four different PFO-PLLA capsules after lyophilisation.



S2 Size distribution of the capsules (based on 100 capsules counted by hand). The size of the capsules is 5.3 ± 2.3 μm.

Equation I



Calculating the shell thickness of a capsule (h) with a variable radius of the capsule (R):

$$V_{capsule} = V_{core} + V_{shell}$$

$$\frac{4}{3}\pi R^3 = \frac{4}{3}\pi(R')^3 + \frac{m_{polymer}}{\rho_{polymer}}$$

$$\frac{4}{3}\pi R^3 = \frac{4}{3}\pi(R')^3 + \frac{\frac{m_{polymer}}{\rho_{polymer}}}{V_{decane}} V_{core}$$

Assuming that all the polymer ends up in the shell, this results in:

$$V_{decane} = V_{core} = \frac{4}{3}\pi(R')^3$$

$$R' = \frac{R}{\sqrt[3]{1+f}} \quad \text{, where} \quad f = \frac{\frac{m_{polymer}}{\rho_{polymer}}}{V_{decane}}$$

h=R-R'

with $m_{polymer}$ = weighed amount of polymer [g], $\rho_{polymer}$ = density of the polymer [g/cm^3],[7] V_{decane} = amount of decane [mL], R = measured diameter of the capsule/2 [µm] and h = thickness of the shell [µm].