SUPPORTING INFORMATION

Clustering and Hierarchical Organization of 3D Printed Poly(propylene fumarate)-*block*-PEG-*block*-Poly(propylene fumarate) ABA Triblock Copolymer Hydrogels

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Guinier

$I(q) = I(0)\exp(-R_g^2 q^2/3)$

Guinier-Porod

$$I(q) = \begin{cases} \frac{G}{q^{dim}} \exp\left(\frac{-q^2 R_g^2}{3-dim}\right) & q \leq q_1 \\ D/q^m & q \geq q_1 \end{cases}$$

$$q_1 = \frac{1}{R_g}\left(\frac{3m}{2}\right)^{1/2}$$

$$D = G\exp\left(\frac{-q_1^2 R_g^2}{3}\right) q_1^m = G\exp\left(\frac{-m}{2}\right)\left(\frac{3m}{2}\right)^{1/2} \frac{1}{R_g^m}$$

Beaucage

$$I(q) = \text{background} + \sum_{i=1}^{N}\left[G_i \exp\left(\frac{-q^2 R_{gi}^2}{3}\right) + B_i \exp\left(\frac{-q^2 R_{g(i+1)}^2}{3}\right)\left(\frac{1}{q_i^*}\right)^{P_i}\right]$$

with $q_i^* = q\left[erf\left(\frac{qR_{gi}}{\sqrt{6}}\right)\right]^{-3}$

Table S1. Parameters obtained from the different models used to fit SANS data

Coplymer	Model	Fitting parameters		
PPF_3-*b*-PEG_{45}-*b*-PPF_3	Guinier-Porod	R_g = 27.0 Å	m = 3.9 = -slope	Dim = 0 (sphere)
PPF_7-*b*-PEG_{45}-*b*-PPF_7	Beaucage	R_{g1} = 32.8 Å / R_{g2} = 332.2 Å	G1 = 8.19 cm^{-2} / G2 = 1307 cm^{-2}	B1 = 3.32×10^{-6} cm^{-2} / B2 = 4.19×10^{-3} cm^{-2}
PPF_{12}-*b*-PEG_{45}-*b*-PPF_{12}	Beaucage	R_{g1} = 35.9 Å / R_{g2} = 215.4 Å	G1 = 2.14 cm^{-2} / G2 = 116.4 cm^{-2}	B1 = 2.24×10^{-2} cm^{-2} / B2 = 5.11×10^{-5} cm^{-2}
PPF_3-*b*-PEG_{91}-*b*-PPF_3	Guinier-Porod	R_g = 27.9 Å	m = 2.4 = -slope	Dim = 0 (sphere)
PPF_7-*b*-PEG_{91}-*b*-PPF_7	Guinier-Porod	R_g = 32.3 Å	m = 3.7 = -slope	Dim = 0 (sphere)
PPF_{12}-*b*-PEG_{91}-*b*-PPF_{12}	Guinier-Porod + Percus-Yevick	R_g = 60.6 Å ξ = 220.0 Å	m = 3.7 = -slope	Dim = 0 (sphere)