

Supporting Information

Unexpected Crystallization Barrier in Partially Miscible Polymer Blends - A New Opportunity for Tailoring Self-Reinforcing Polymer Materials

Robert D. L. Jerusalem, Michail Maricanov, Anas Kerkour el Miad, Hannah Keune, Frank Katzenberg,
and Joerg C. Tiller

Biomaterials & Polymer Science, Department of Biochemical and Chemical Engineering, TU
Dortmund, 44221 Dortmund, Germany.

Corresponding author: Prof. Dr. Joerg C. Tiller
E-mail address: joerg.tiller@tu-dortmund.de

Table S1: Weights of components used for PVDF/PEtOx blend preparation.

wt.% _{PVDF} /wt.% _{PEtOx}	m_{PVDF} [g]	m_{PEtOx} [g]
0/100	0	5.02
10/90	0.52	4.48
20/80	1.01	4.00
30/70	1.52	3.48
40/60	2.01	2.99
45/55	2.26	2.74
50/50	2.50	2.5
55/45	2.75	2.25
60/40	3.00	2.00
65/35	3.38	1.62
70/30	3.50	1.50
75/25	3.75	1.26
80/20	4.01	1.00
90/10	4.49	0.51
100/0	5.03	0

Table S2: Weights of components used for PVDF/PEtOx LC network synthesis.

wt.% _{PVDF} /wt.% _{PEtOx}	m_{PVDF} [g]	m_{PEtOx} [g]	m_{DCP} [g]	m_{TAIC} [g]
0/100	0	5.00	0.10	0.81
10/90	0.51	4.51	0.10	0.80
20/80	1.01	4.01	0.10	0.80
30/70	1.50	3.51	0.10	0.80
40/60	1.99	3.02	0.10	0.79
45/55	2.25	2.76	0.10	0.80
50/50	2.51	2.50	0.10	0.81
55/45	2.75	2.26	0.10	0.80
60/40	2.99	2.01	0.10	0.80
65/35	3.23	1.77	0.10	0.81
70/30	3.49	1.52	0.10	0.79
80/20	4.01	0.99	0.10	0.80
90/10	4.51	0.50	0.10	0.80
100/0	5.01	0	0.10	0.79

Table S3: Weights of components used for PVDF/PEtOx HC network synthesis.

wt.% _{PVDF} /wt.% _{PEtOx}	m_{PVDF} [g]	m_{PEtOx} [g]	m_{DCP} [g]	m_{TAIC} [g]
0/100	0	5.01	0.25	2.00
10/90	0.51	4.49	0.25	2.01
20/80	1.00	4.00	0.25	2.00
30/70	1.50	3.50	0.25	2.00
40/60	1.99	3.01	0.25	2.00
45/55	2.25	2.76	0.25	2.00
50/50	2.50	2.51	0.25	2.01
55/45	2.74	2.27	0.25	1.99
60/40	3.00	2.01	0.25	2.00
65/35	3.26	1.75	0.25	2.00
70/30	3.51	1.50	0.25	1.99
80/20	4.01	1.00	0.25	2.00
90/10	4.50	0.51	0.25	2.01
100/0	5.01	0	0.25	2.00

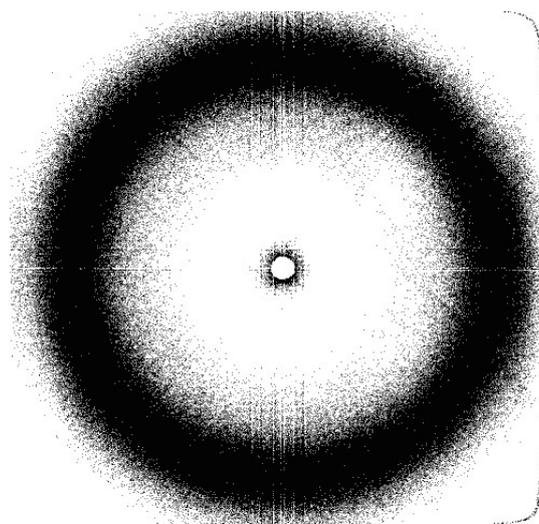


Figure S1: WAXS pattern of LC-PVDF40/PEtOx60 strained at 60 °C to 100% elongation.