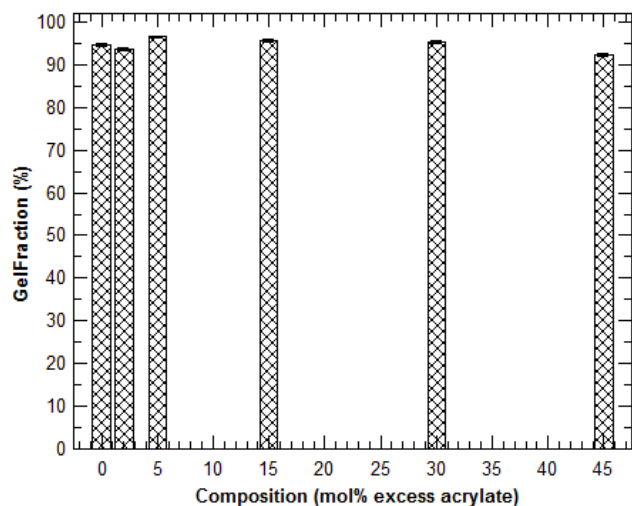


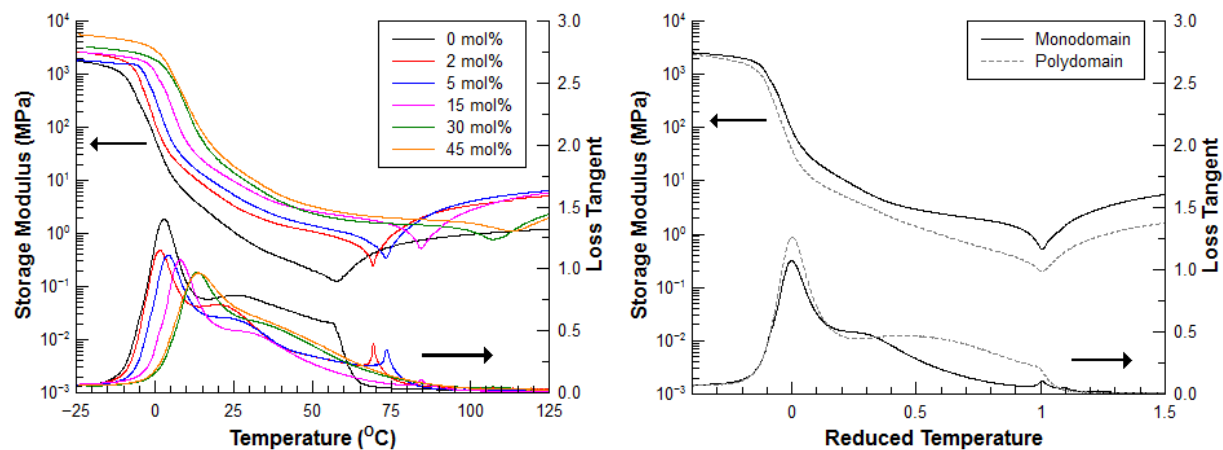
Supporting:

Supplementary Table 1: Compilation of data.

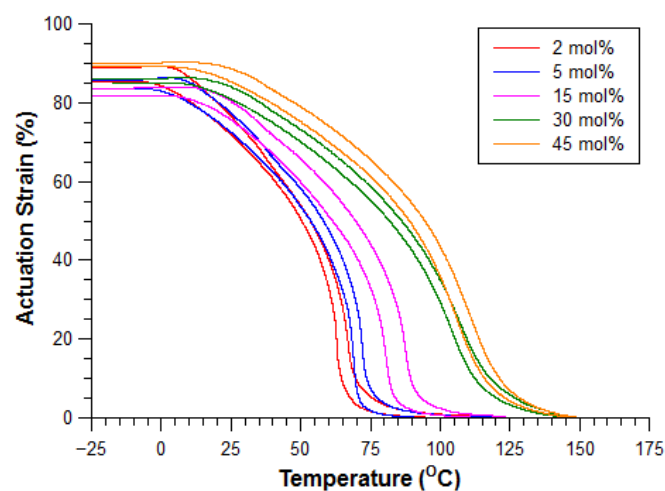
Composition (mol% excess acrylate)	Applied Strain (%)	Fixity (%)	Gel fraction (%)	T_g (°C)	T_i (°C)	$T_i - T_g$ (°C)	E' (MPa) at T_i	Loss Tangent at T_g	Actuation Rate (%/°C)	Actuation Strain (%)
0 (polydomain)	90.2	3	94.7	3	58	55	0.127	1.40	-	-
2	85.2	86.5	93.6	2	69	67	0.239	1.15	10.8	89.3
5	91	90	96.5	4	73	69	0.341	1.11	8.8	86.3
15	108.9	92.6	95.6	8	84	76	0.512	1.07	5.3	84.0
15 (polydomain)	-	-		12	86	74	0.199	1.26	-	-
30	103.2	88.5	95.3	13	107	94	0.764	0.97	1.8	86.4
45	127.8	94.6	92.3	14	113	99	1.107	0.97	1.9	90.4



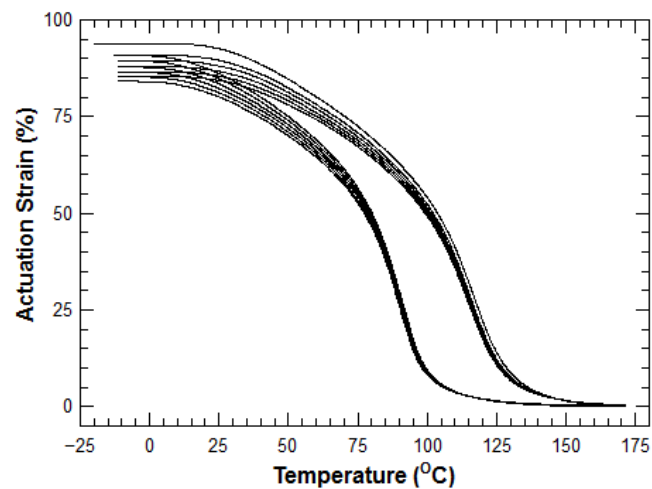
Supplementary Figure 1: Gel fraction (Eq. 2) was greater than 90% for all compositions.



Supplementary Figure 2: (a) DMA with true temperature scale. (b) Comparison of LCEs with 15 mol% excess acrylate photopolymerized in the monodomain (solid) and polydomain (dashed).



Supplementary Figure 3: Actuation with true temperature scale.



Supplementary Figure 4: Repeated actuation of 45 mol.% composition with heating/cooling rate of 3°C/min.