

Unsymmetric Main-Chain Liquid Crystal Elastomers with tunable Phase Behaviour: Elastic Response

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I Sol content and swelling ratio of elastomers

Elastomer	Swelling ratio (q)	Sol content (%)
E2	3	5
E3	4	10
E5	4	10
E6	4	24
E8	4	25
E10	7	20
E11	6	18
E12	9	25

II Stress-strain curves of polydomain films

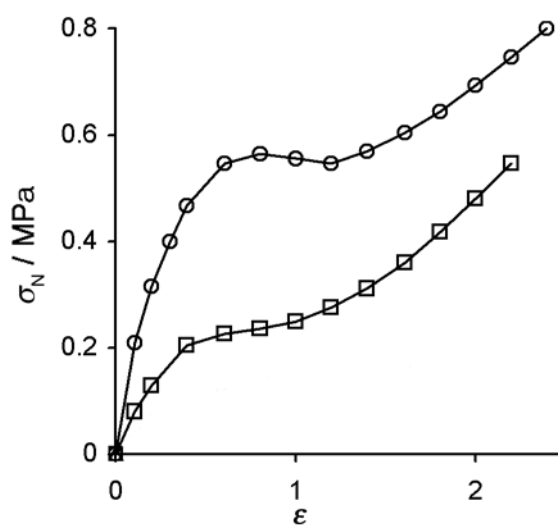


Figure S1. Nominal stress-strain curves for elastomers containing spacer S1 and cross-linker C1: M2 (○),
M3(□)

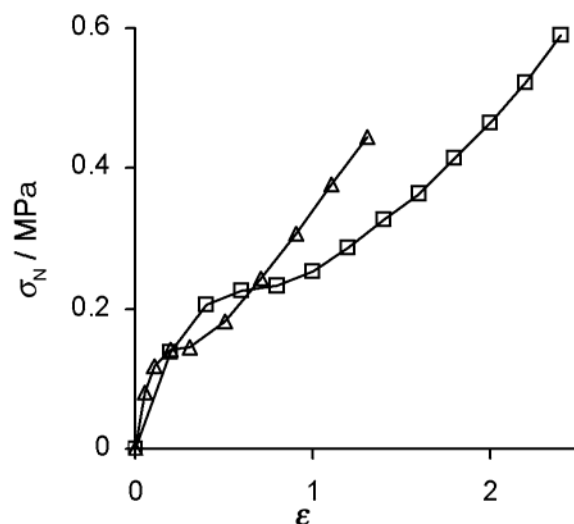


Figure S2. Nominal stress-strain curves for elastomers containing spacer S2 and cross-linker C1: M2 (Δ),
M3(\square)

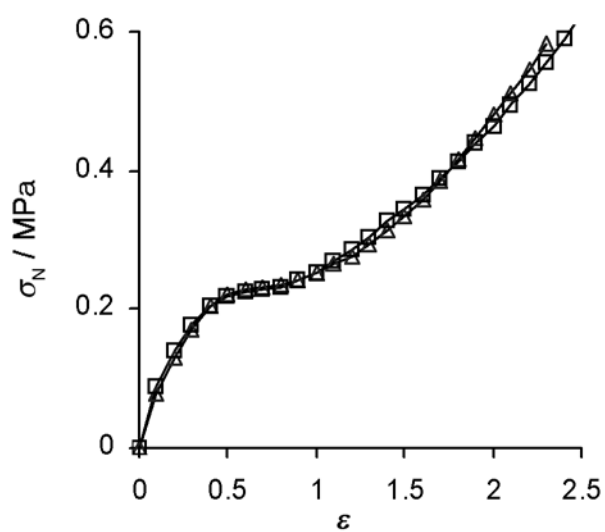


Figure S3. Nominal stress-strain curves for elastomers containing monomer M3 and cross-linker C1:
spacer S1 (Δ) and spacer S2 (\square)

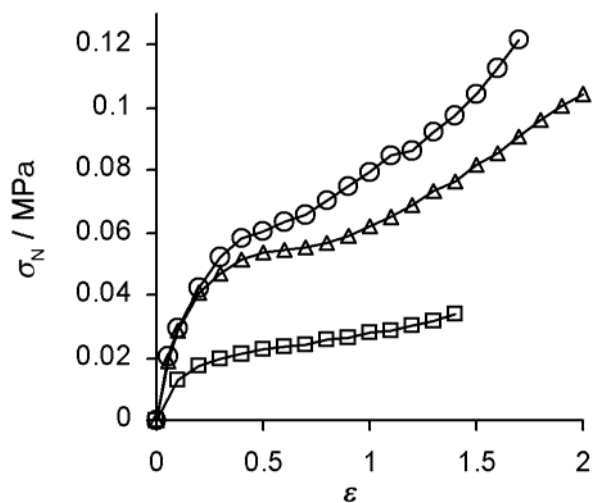


Figure S4. Nominal stress-strain curves for elastomers containing monomer M2 and cross-linker C3: spacer S1 (Δ) and spacer S2 (\circ) and S3 (\square)

III Thermoelastic behaviour of elastomers

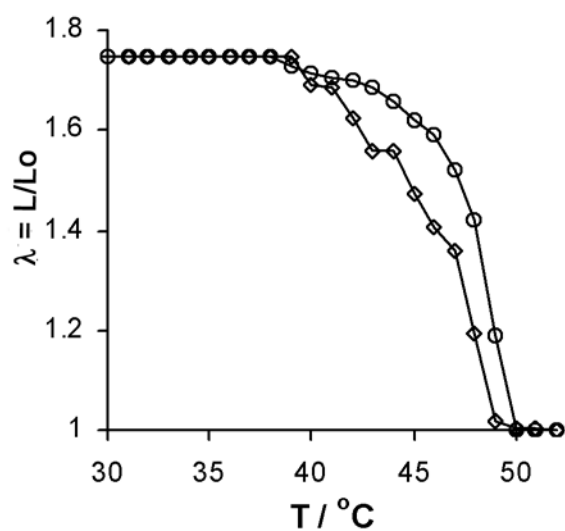


Figure S5. Thermal expansion of E8 on heating (\circ) and cooling (\square) cycles

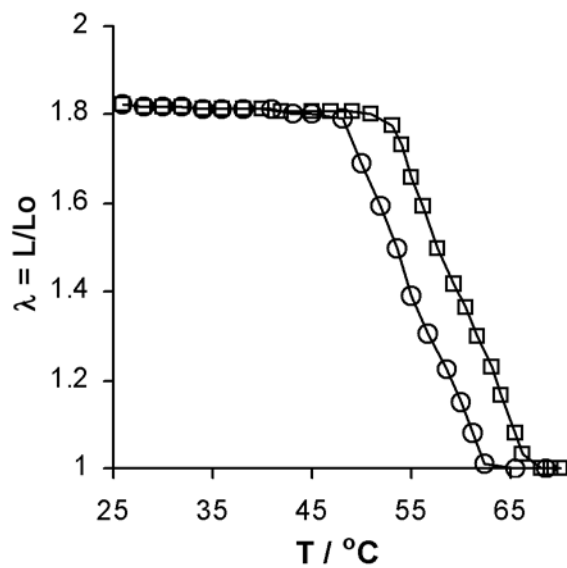


Figure S6. Thermal expansion of E6 on heating (□) and cooling (○) cycles

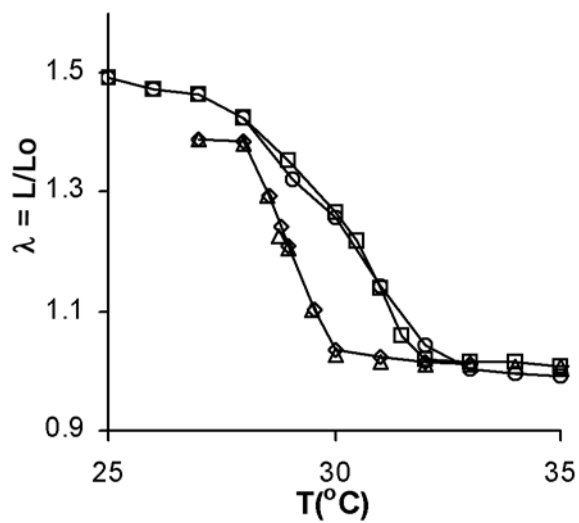


Figure S7. Thermal expansion of E12: heating cycle (○), cooling cycle (□) and E13: heating cycle (Δ), cooling cycle (◇)