

Supporting Information

Measurement of the transition temperature governing the photoinduced reversible solid to liquid transition of azobenzene containing polymers

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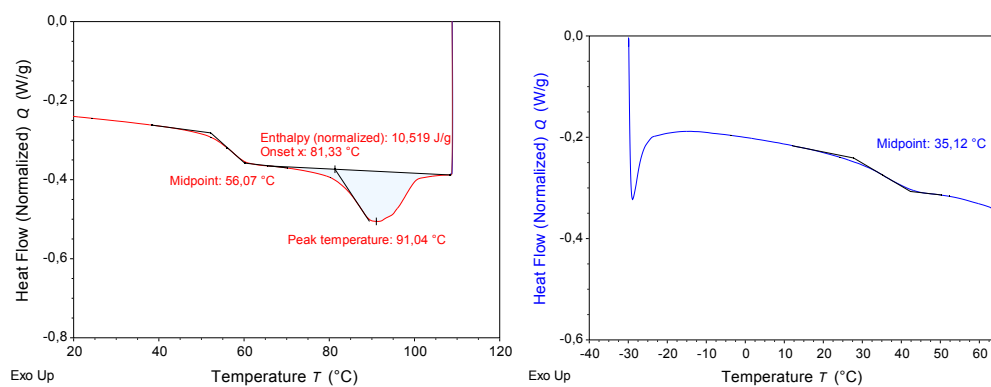


Figure S1. DSC curves for *trans*-PA3 (left) and *cis*-PA3 (right). *Cis*-PA3 (*cis* content=73%

determined by ¹H NMR in CDCl₃ solution)

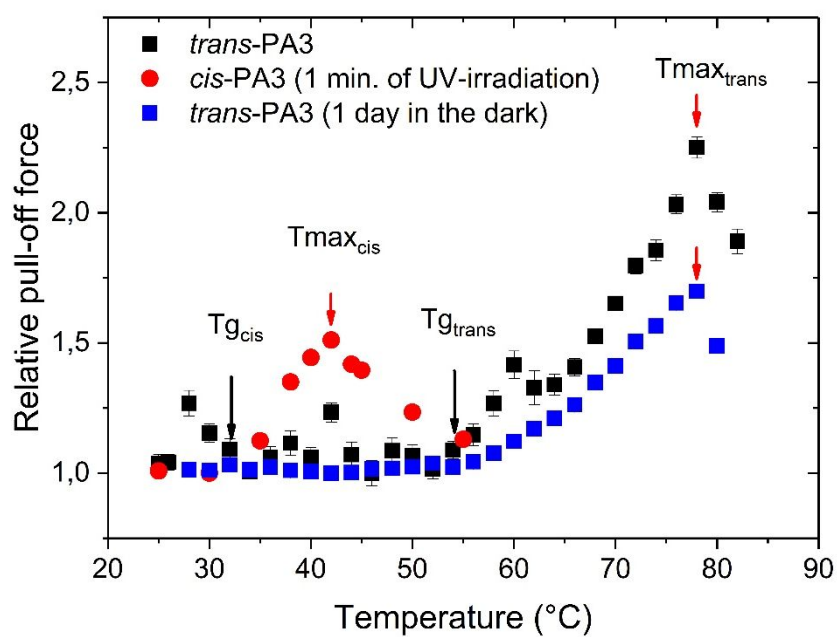


Figure S2. Pull-off force vs. temperature curves for *trans*-PA3 and *trans*-PA3 after a *cis* to *trans* back isomerization (1 night in the dark) showing the reversibility of the transition.

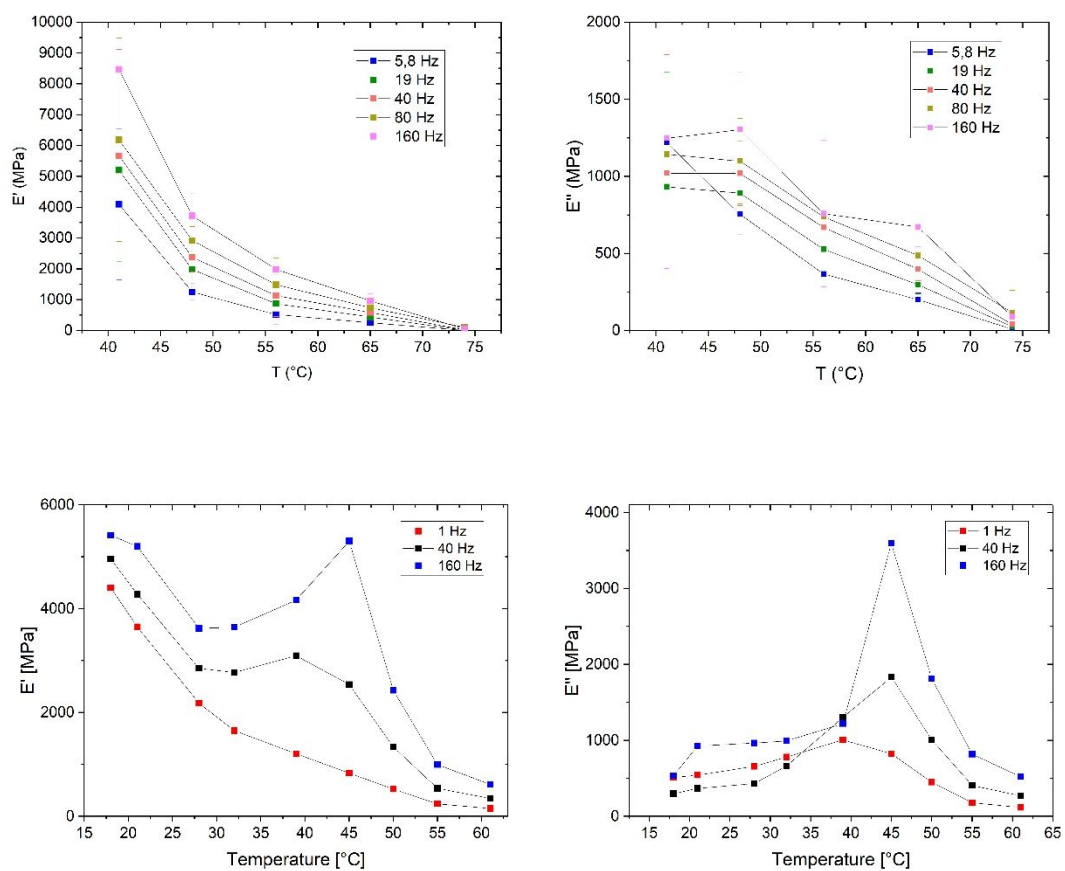


Figure S3. Evolution of E' and E'' for *trans*-PA3 (top) and *cis*-PA3 (bottom)

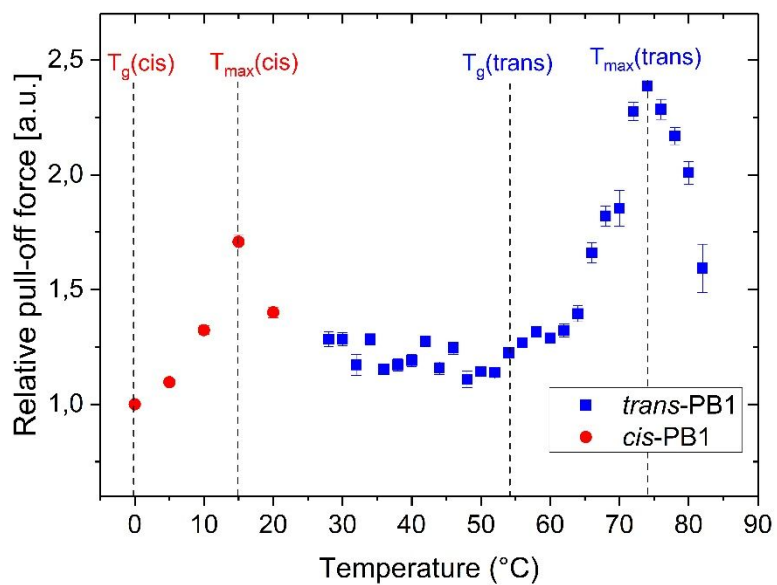


Figure S4. Evolution of the normalized pull-off force as function of the temperature for PB1 azopolymer before (*trans*-PB1) and after UV irradiation (*cis*-PB1) ($\lambda_{\text{max}}=365\text{nm}$, $E_e=300\text{mW}\cdot\text{cm}^{-2}$, $t=30\text{s}$).