Supporting information

Dynamic cross-linked Latent Accelerators Featuring Dual-Dynamic Urea Bonds for One-Component Epoxy Systems

contents

Supporting Figures

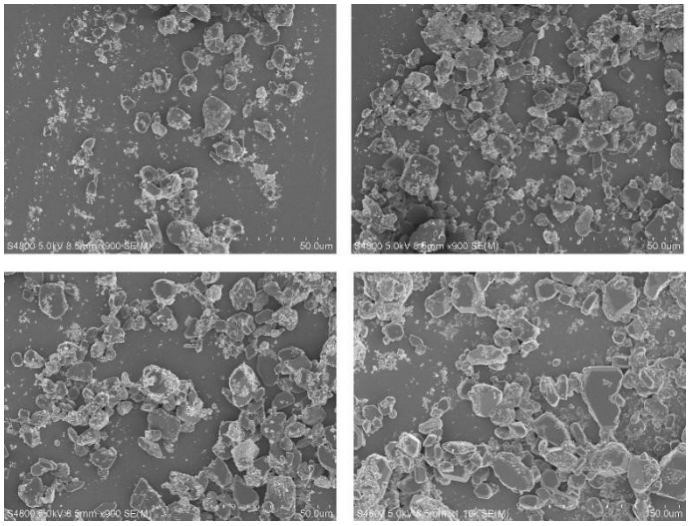

Fig. S1 SEM images of DICY.

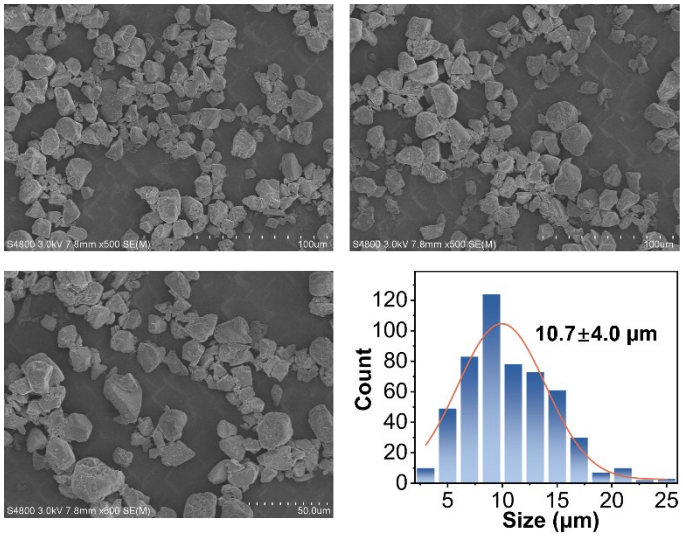

Fig. S2 SEM images and statistical particle size of IEM-DtBIM-0.25.

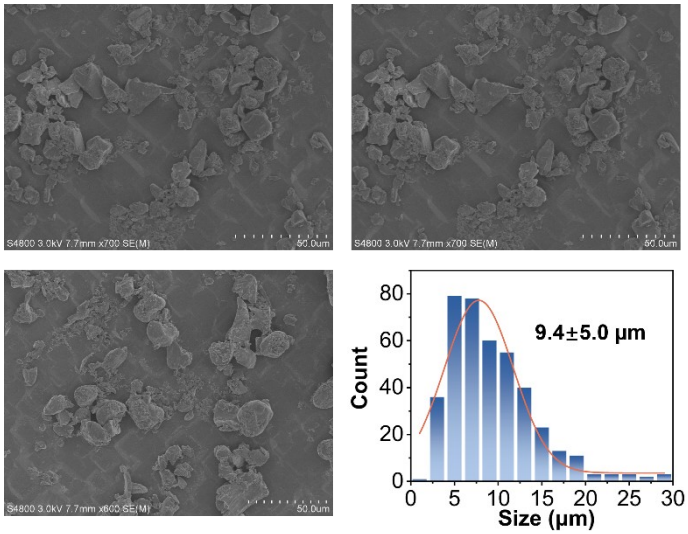

Fig. S3 SEM images and statistical particle size of IEM-DtBIM-0.50.

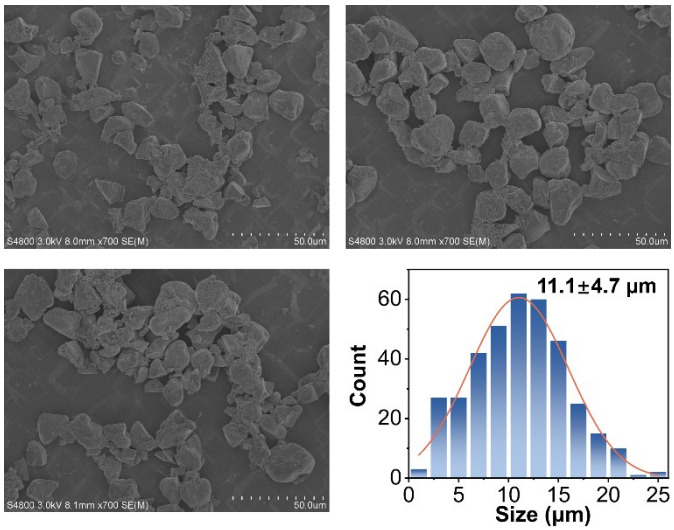

Fig. S4 SEM images and statistical particle size of IEM-DtBIM-0.75.

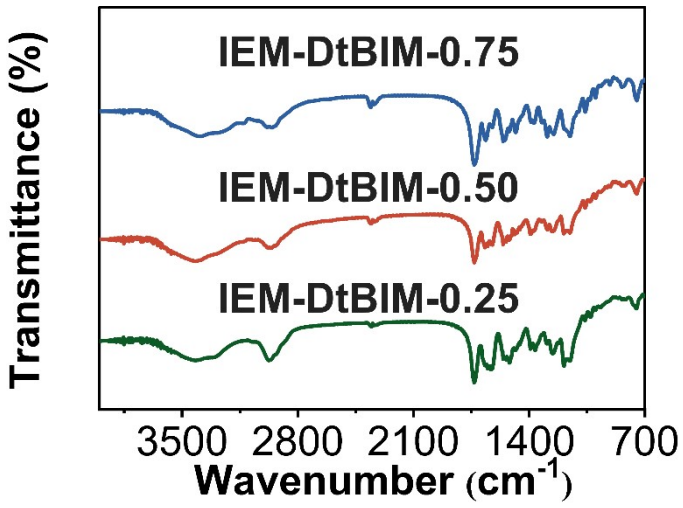

Fig. S5 FTIR spectra of IEM-DtBIM-x.

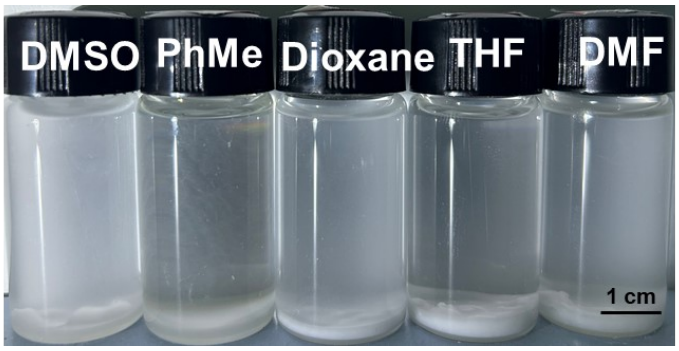

Fig. S6 Dissolution experiment of IEM-DtBIM-0.25 in different solvents at room temperature for 0 day.

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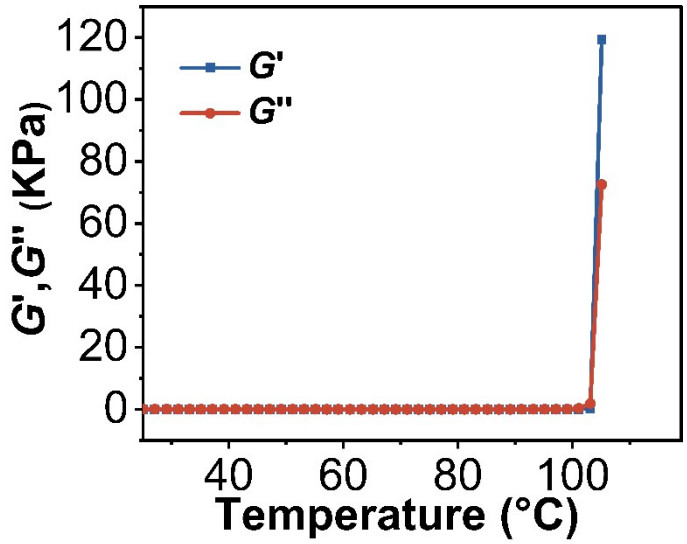
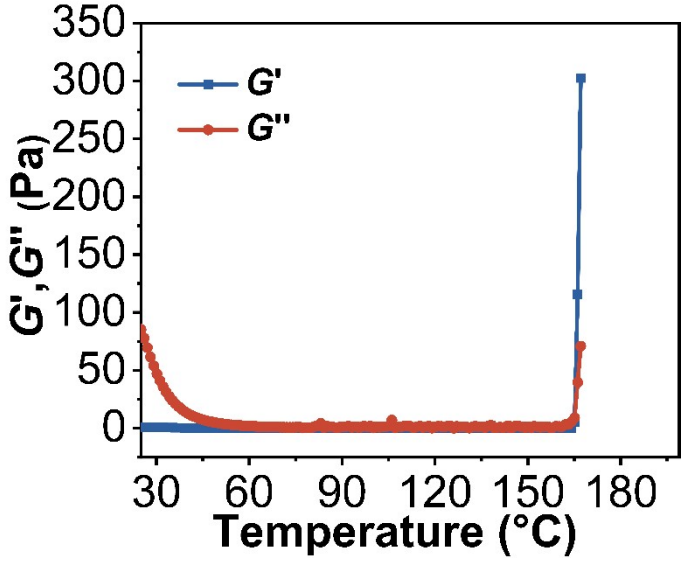


Fig. S12 Storage modulus and loss modulus of E-D-IM under non-isothermal rheology.



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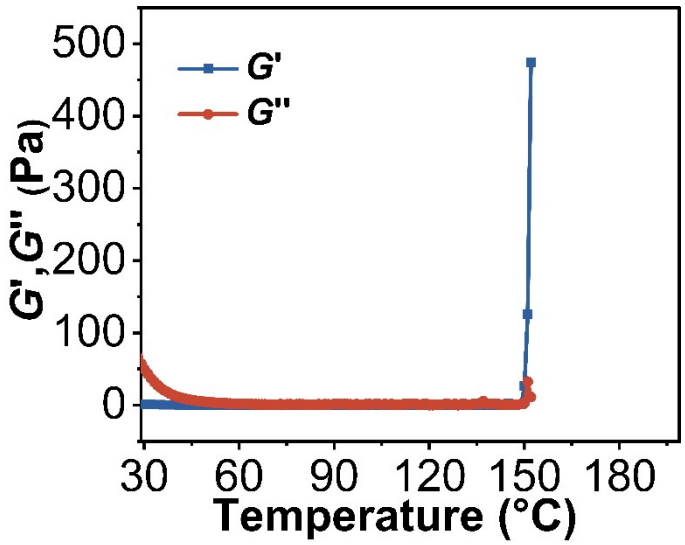

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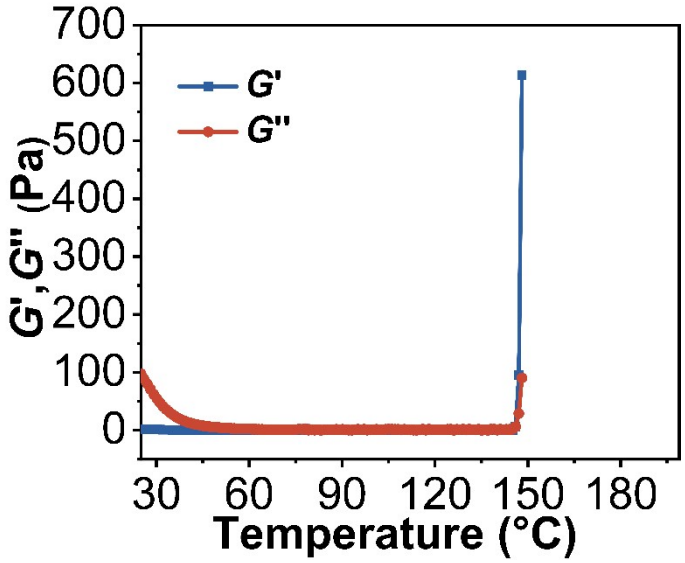

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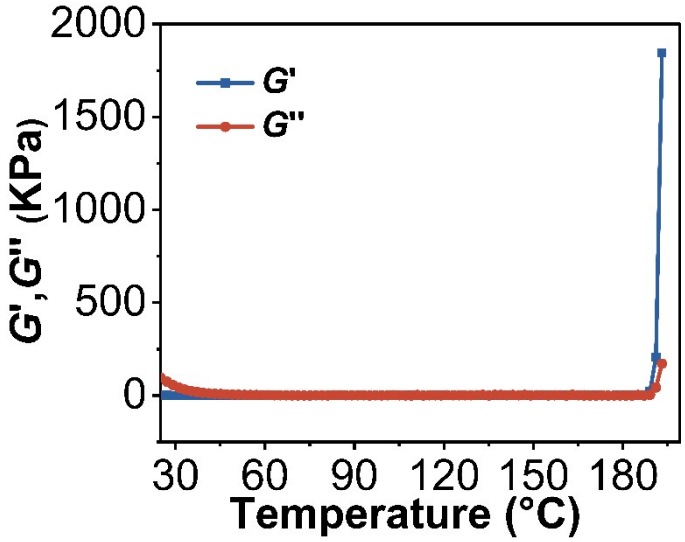

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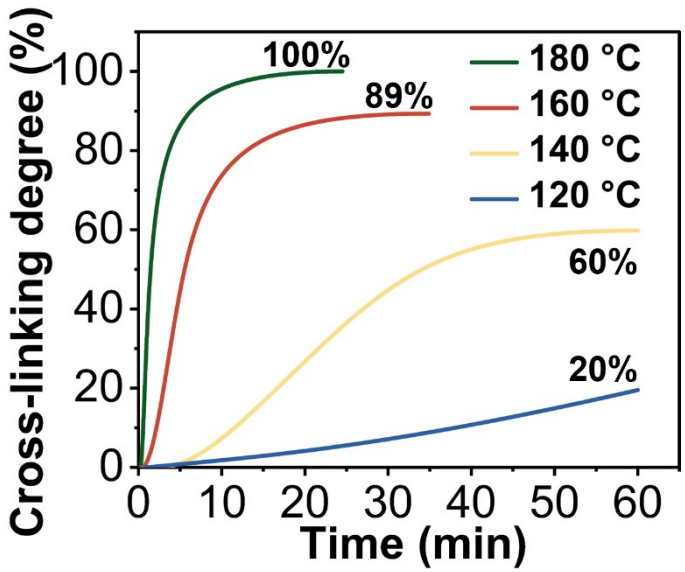


Fig. S17 Cross-linking degree of E-D-ID0.25 calculated from isothermal DSC curves at different temperatures for 60 min.

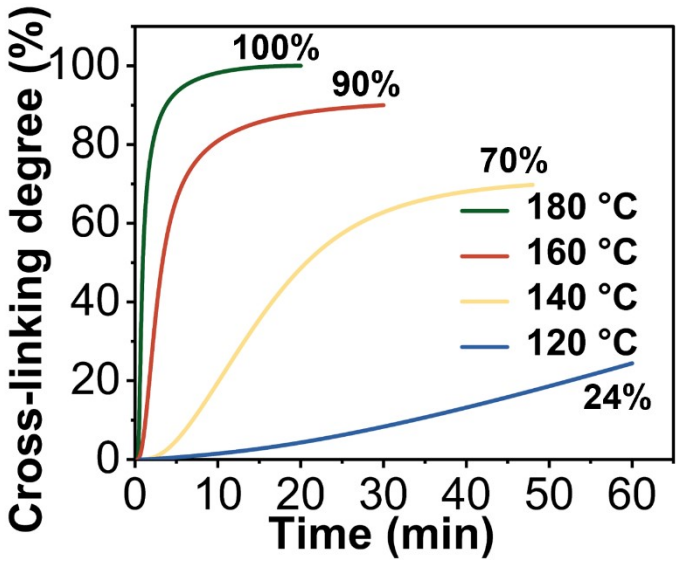


Fig. S18 Cross-linking degree of E-D-ID0.50 calculated from isothermal DSC curves at different temperatures for 60 min.

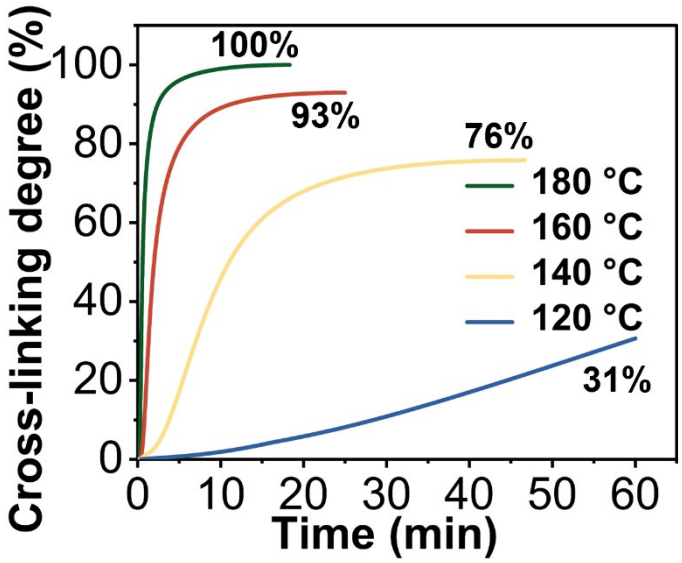


Fig. S19 Cross-linking degree of E-D-ID0.75 calculated from isothermal DSC curves at different temperatures for 60 min.

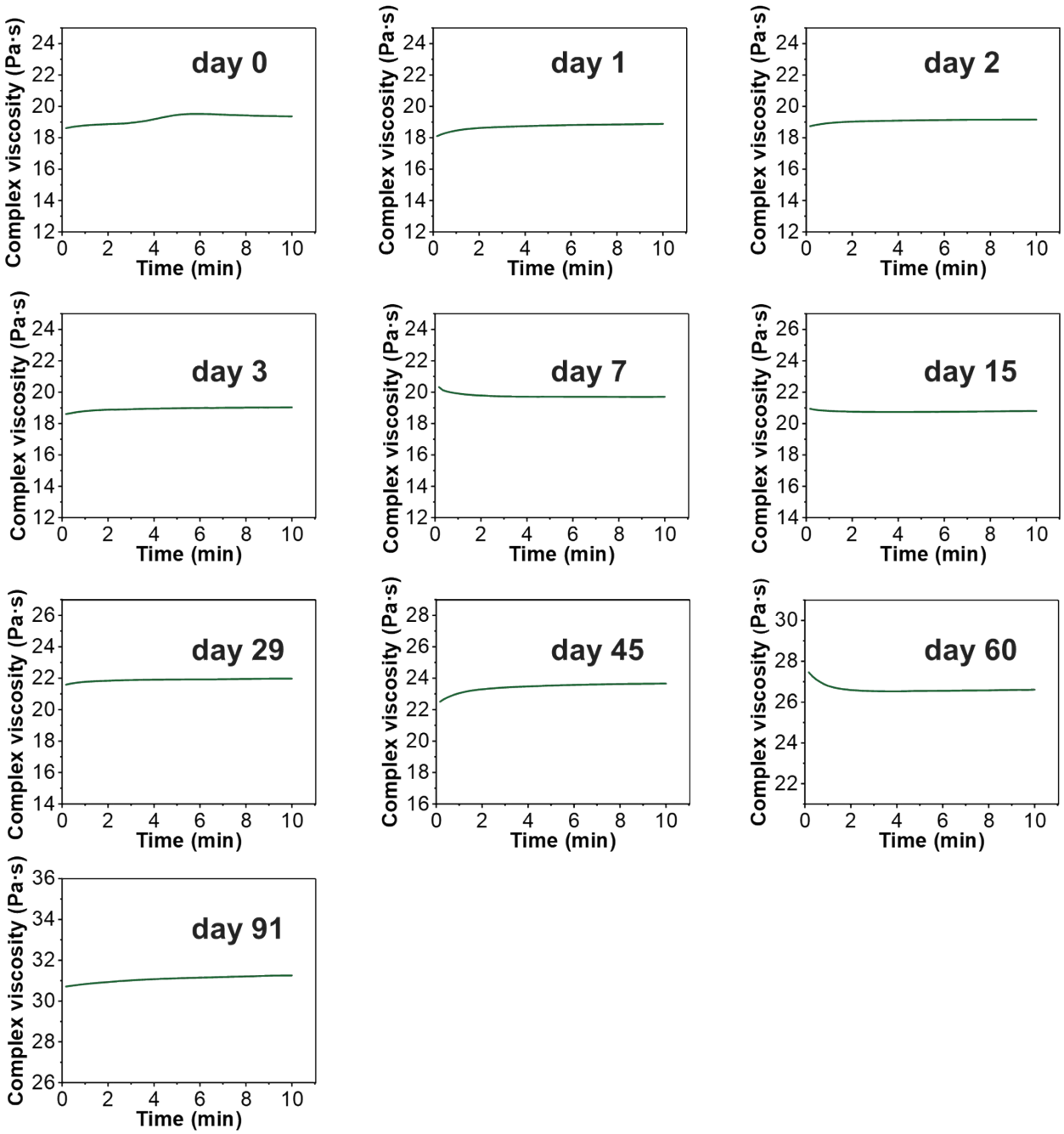


Fig. S20 Complex viscosity of E-D-ID0.25 after different storage times at room temperature.

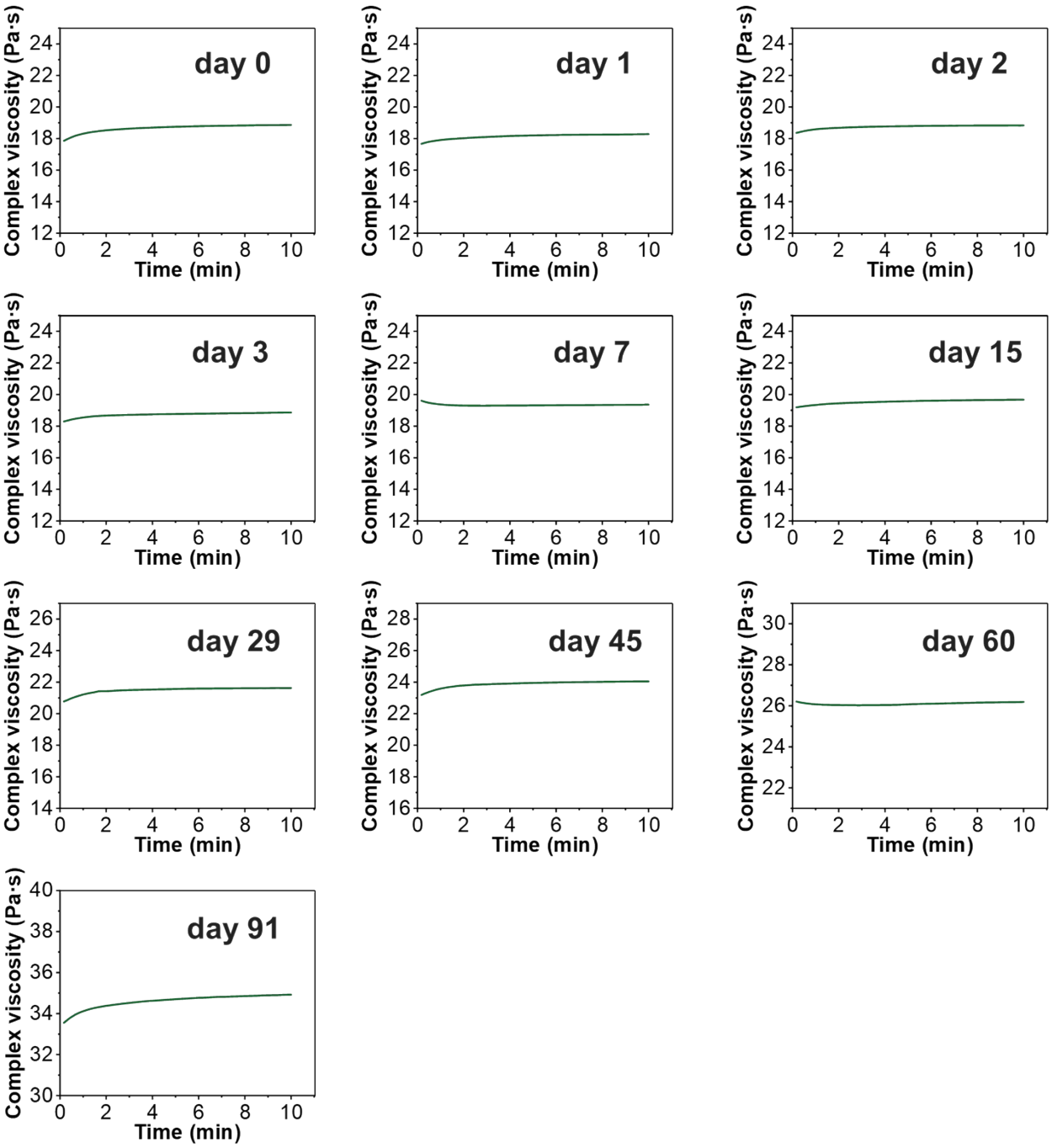
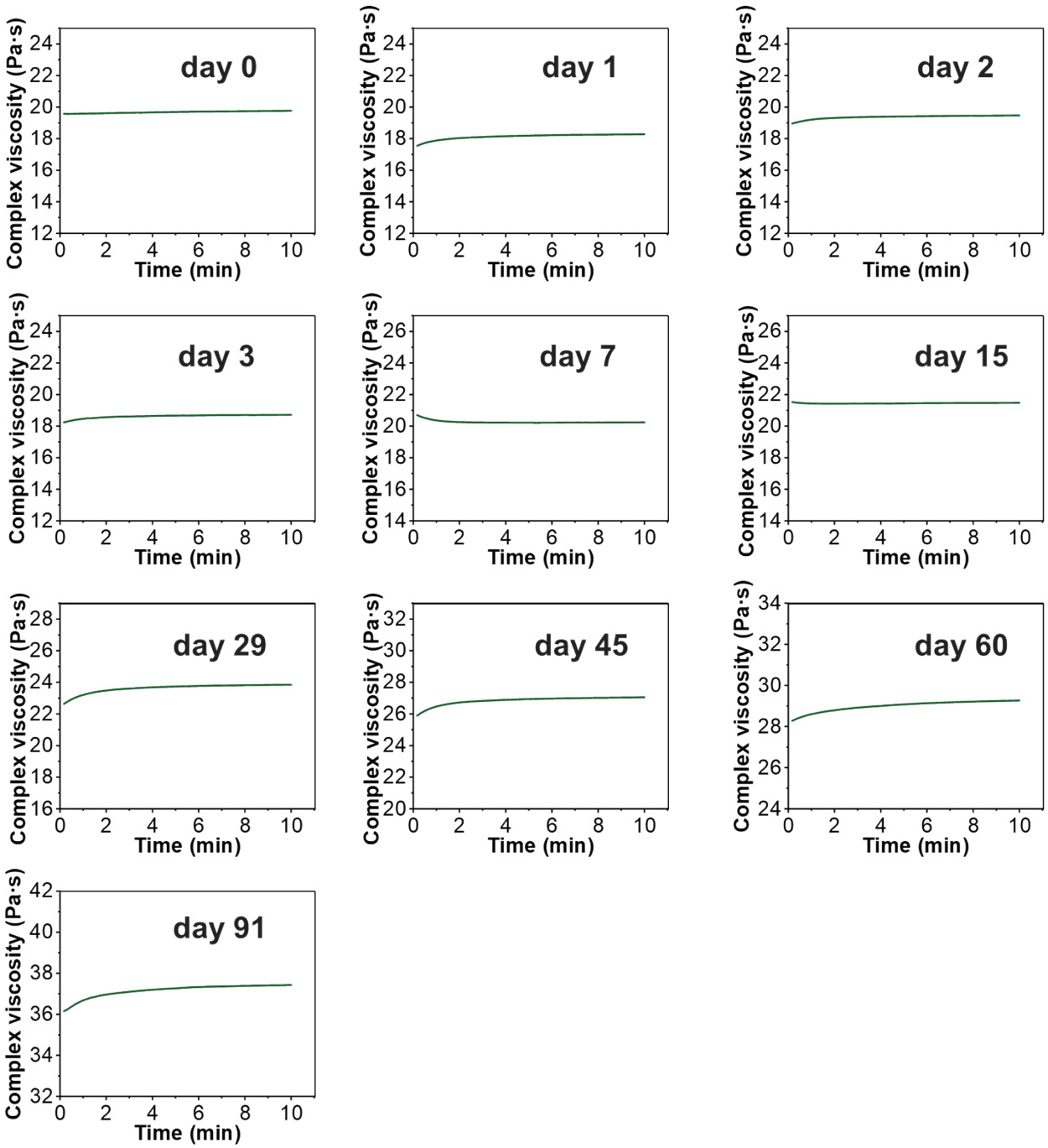


Fig. S21 Complex viscosity of E-D-ID0.50 after different storage times at room temperature.



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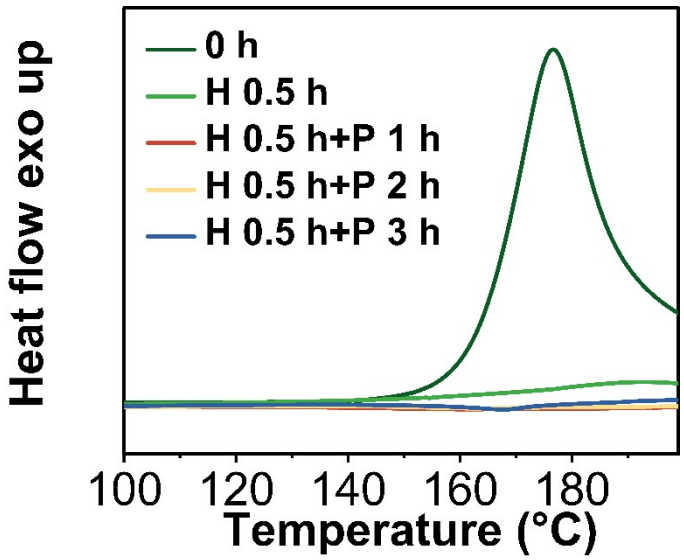

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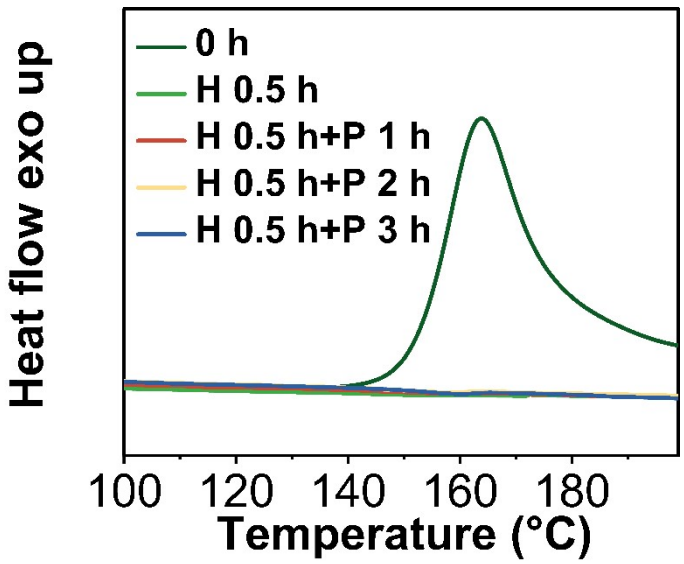


Fig. S24 Non-isothermal DSC curves of E-D-ID0.75 are obtained by pre-curing at 120 °C for 0.5 h, followed by hot pressing at 130 °C for 0.5 h, and post-curing in a vacuum furnace at 150 °C for 1-3 h.

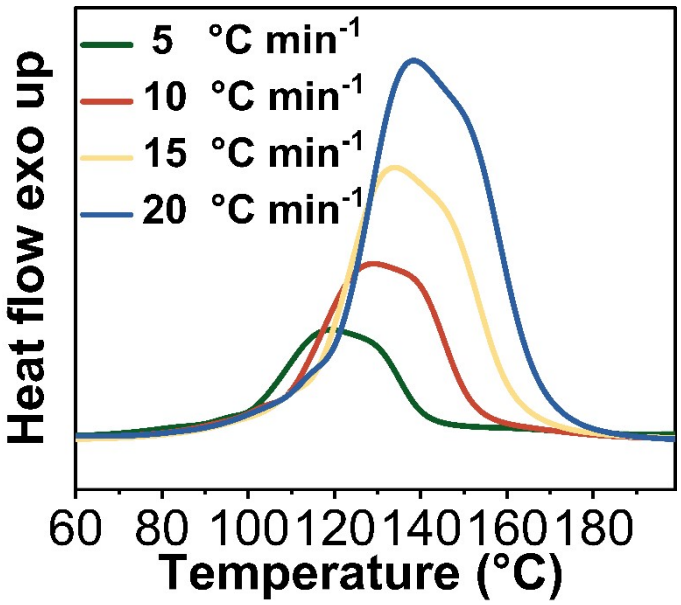
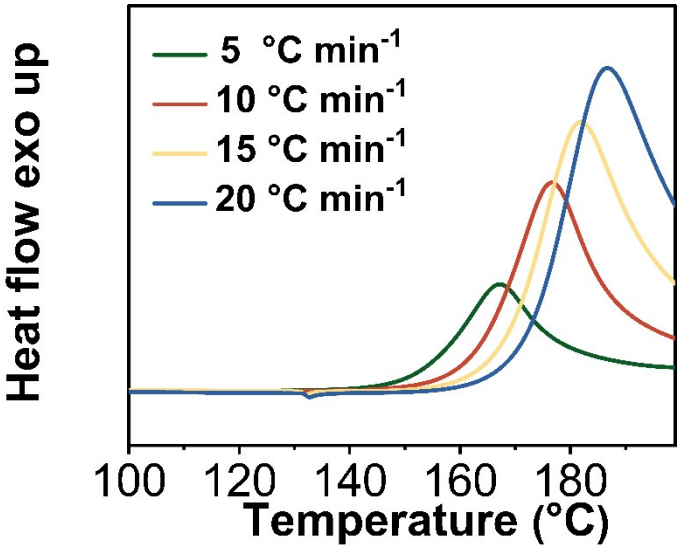


Fig. S25 Non-isothermal DSC curves of E-D-IM for different heating rates.



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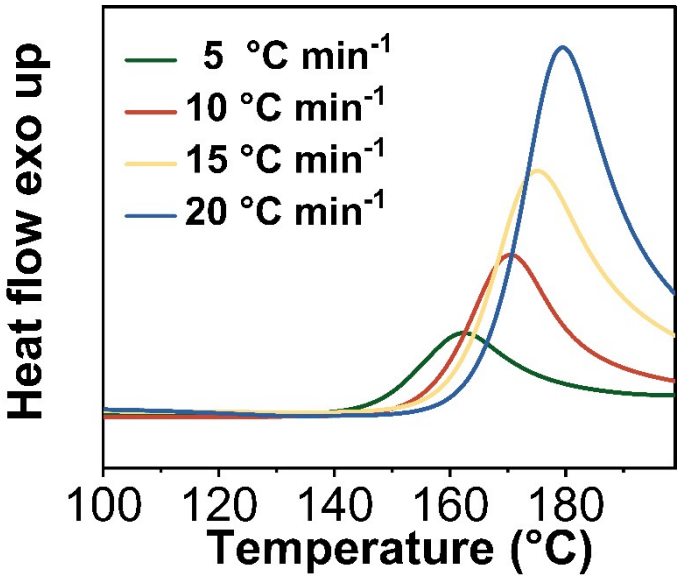

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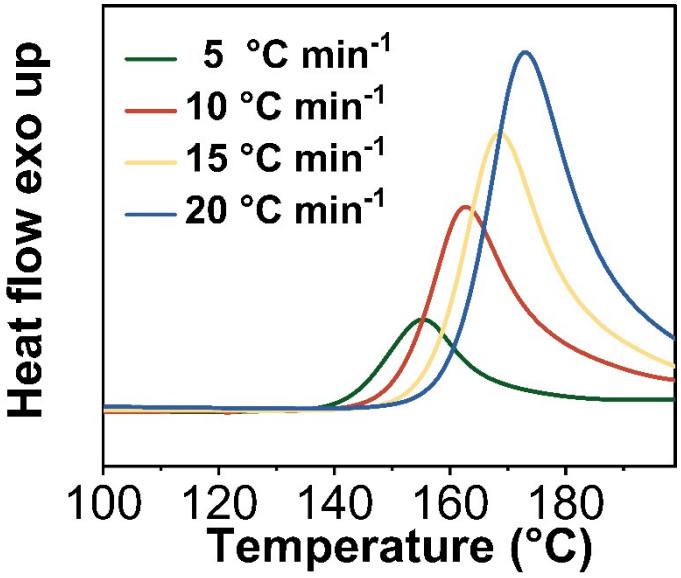

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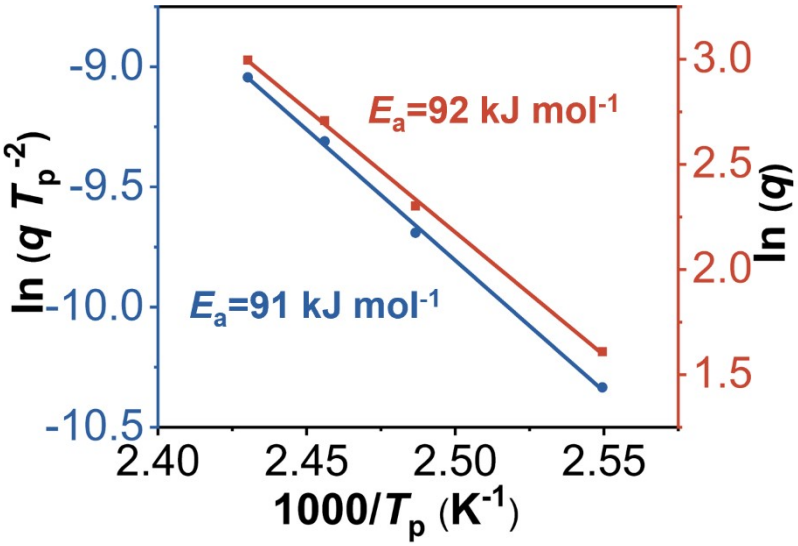
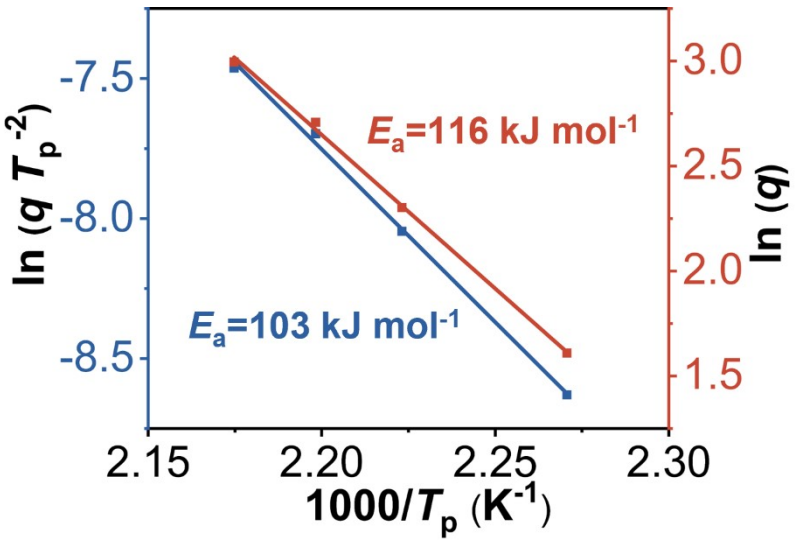


Fig. S29 Predicted E_a of D-D-IM by *Kissinger's* and *Ozawa's* methods.



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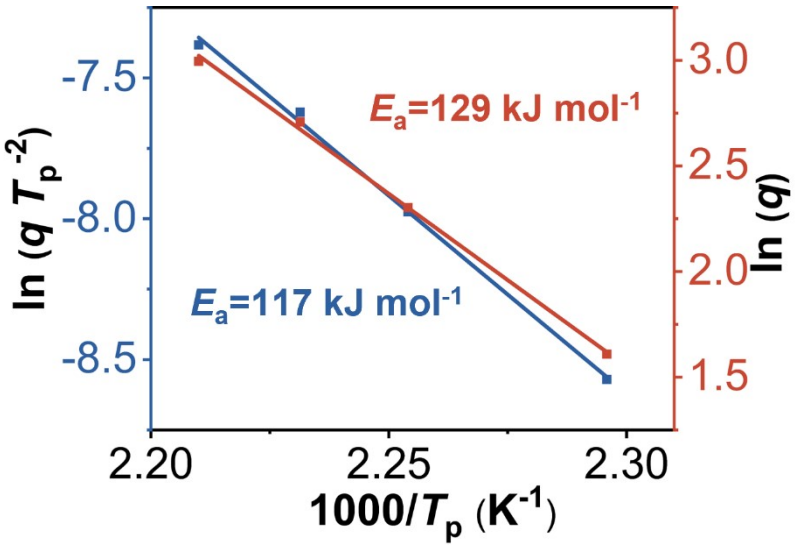

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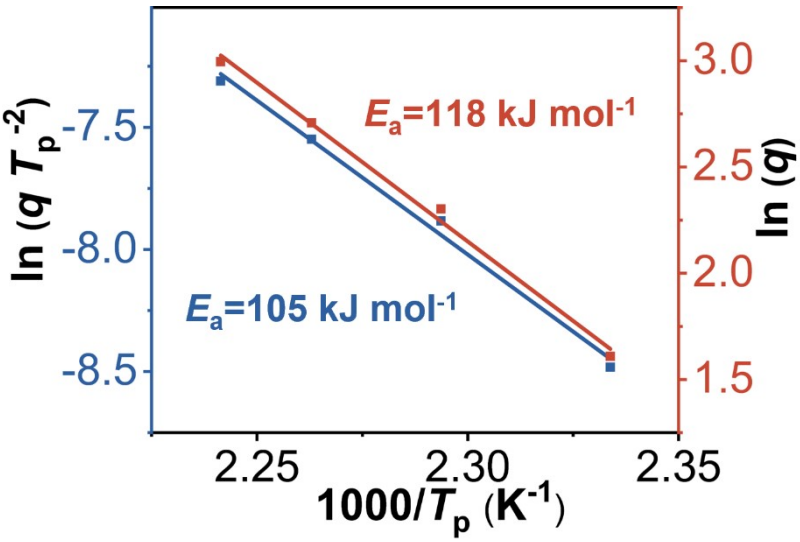


Fig. S32 Predicted E_a of E-D-ID0.75 by *Kissinger's* and *Ozawa's* methods.

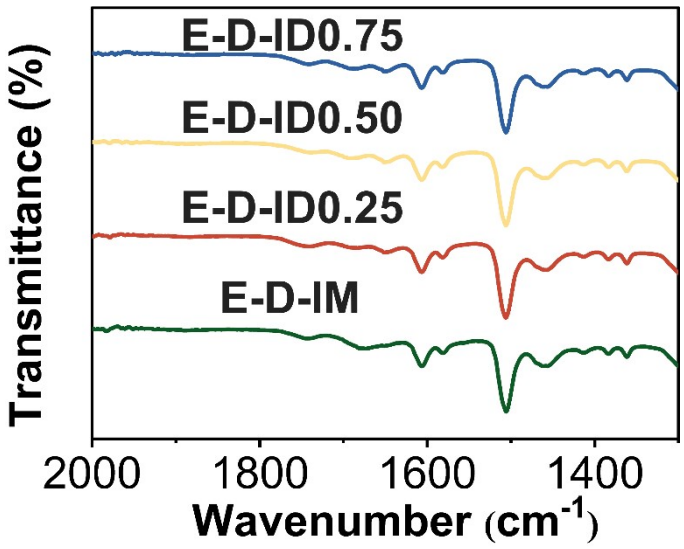


Fig. S33 FTIR spectra of the cured E-D-IM and E-D-IDx.

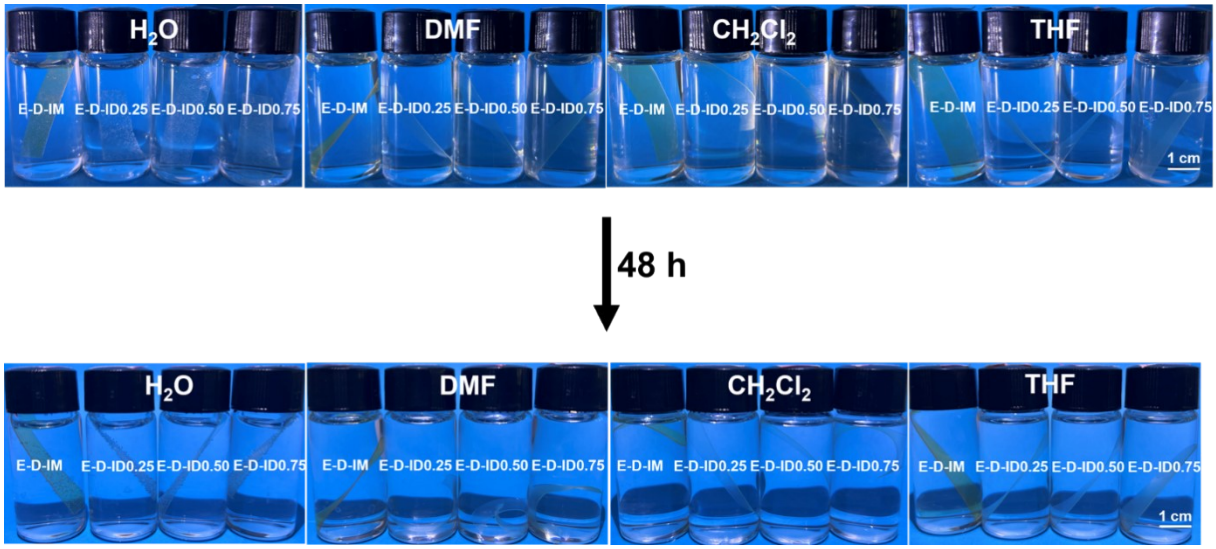


Fig. S34 Solvent uptake test of E-D-IM and E-D-IDx by immersion in different solvents for 48 h.

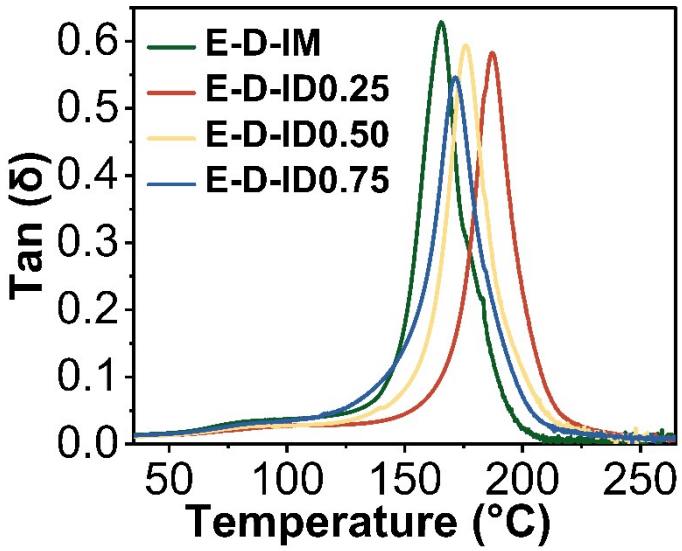
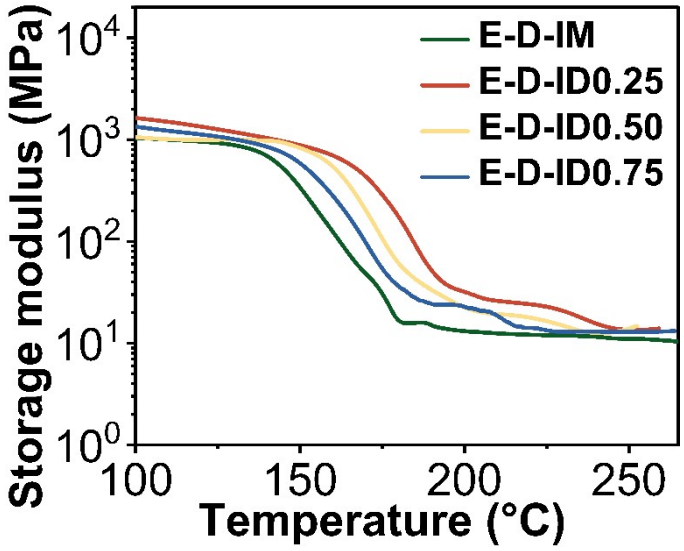


Fig. S35 Plot of tan δ versus temperature.



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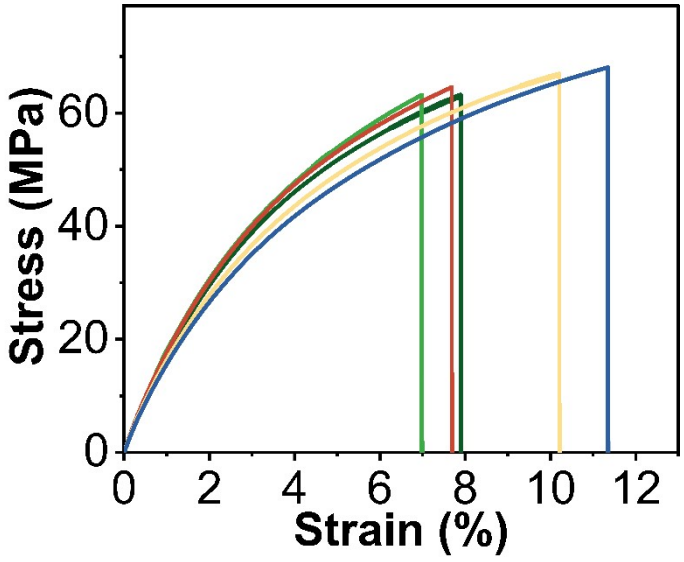

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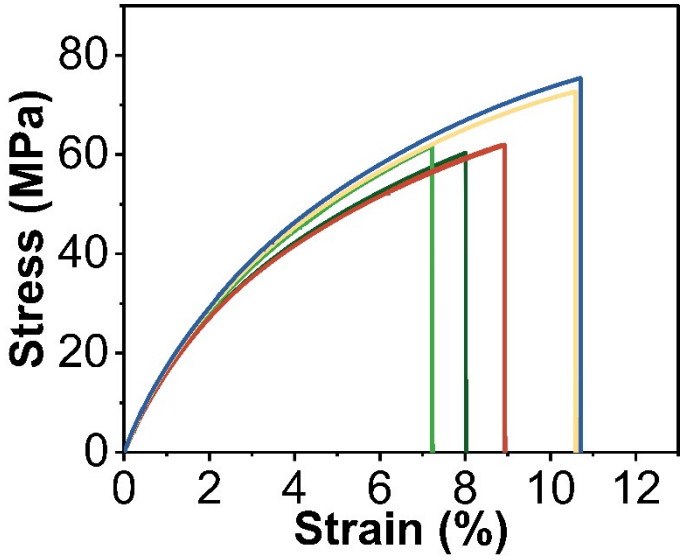

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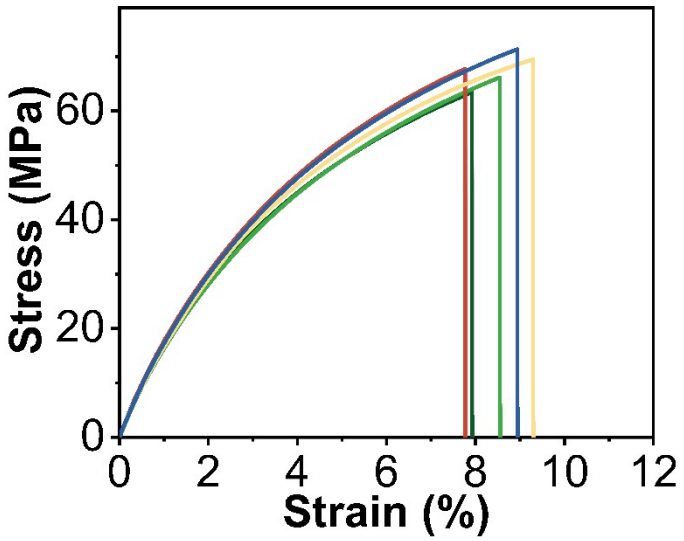

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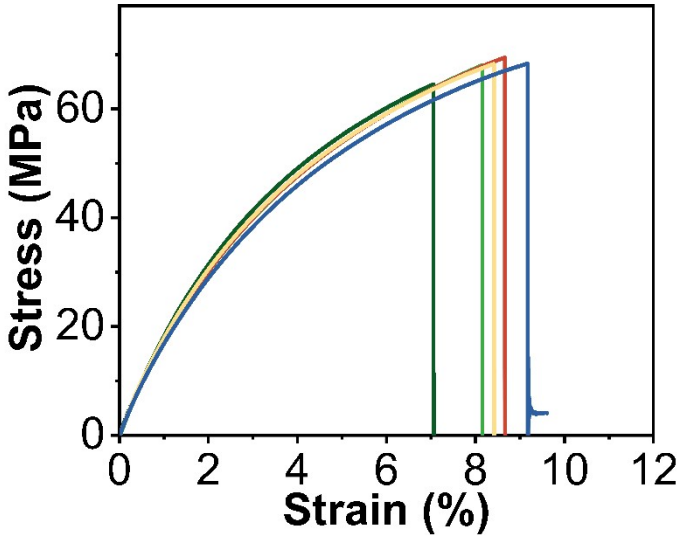

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