**Supplementary Material**

Deformable liquid metal polymer composites with tunable electronic and mechanical properties

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**FIG S1.** Viscosity of unfilled PDMS in the strain (at 1Hz) and frequency (at 0.1% strain) domains.



**FIG S2**. Viscosity of mineral oil-in-PDMS uncured dispersions at 10, 20, and 30 vol% in the strain (at 1Hz) and frequency (at 0.1% strain) domains.



**FIG S3**. Storage modulus (filled points) and loss modulus (unfilled points) of galinstan-in-PDMS dispersions with V41:T11 in the strain (at 1Hz) and frequency (at 0.1% strain) domains.



**FIG S4**. Storage modulus (filled points) and loss modulus (unfilled points) of nickel-in-PDMS dispersions with V41:T11 in the strain (at 1Hz) and frequency (at 0.1% strain) domains.



**FIG S5**. Rheology of galinstan measured with a parallel plate geometry in the strain (at 1Hz) and frequency (at 0.1% strain) domains.



**FIG S6.** Storage modulus (filled points) and loss modulus (unfilled points) of mineral oil-in-PDMS cured dispersions at 10, 20, and 30 vol% in the strain (at 1Hz) and frequency (at 0.1% strain) domains.



**FIG S7.** Rheology of phase inverted PDMS-in-galinstan dispersions in the strain (at 1Hz) and frequency (at 0.1% strain) domains.



**FIG S8**. Impedance vs. frequency from 1kHz to 1MHz of phase inverted PDMS-in-galinstan dispersions.