

Supporting information

Inkjet printable polydimethylsiloxane for all-inkjet printed multilayered, soft electrical applications

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The jettability of the inkjet inks can be estimated with an inverse of the Ohnesorge number, Z , which is a result of fluid properties (viscosity η , surface tension γ , density ρ , and droplet diameter d):

$$Z = \frac{(d\rho\gamma)^{1/2}}{\eta}. \quad (1)$$

Here, the droplet diameter was approximated to be the same as the nozzle diameter. The calculated Z -numbers of the PDMS inks are presented in table S1 together with the fluid characteristics of each ink.

Table S1. Fluid properties of each PDMS ink, and the calculated Z-numbers.

Ink	Measured Viscosity (mPa·s)	Measured surface tension (mN/m) ¹	Calculated density (g/ml)	Nozzle diameter (μm)	Z-number
PDMS-IBA 1:2	9.3	19.4±0.4	0.93	21	2.1
PDMS-IBA-OA 1:1:1	12.3	19.3±0.2	0.93	21	1.6
PDMS-OA 1:2	16.9	21.7±0.3	0.93	21	1.2

PDMS-OA 1:3	13.7	21.8±0.1	0.92	21	1.5
PDMS-OA 1:4	7.2	22.2±0.2	0.91	21	2.9

¹Average ± standard deviation.