

# Rheological Properties and Inkjet Printability of a Green Silver-Based Conductive Ink for Wearable Flexible Textile Antennas

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## Supplementary data

**Table S1:** Degradation of suspension matrices.

Suspension matrix	Stage I (°C)	Stage II (°C)	Stage III (°C)
SM <sub>1</sub>	60-134	144-245	-----
SM <sub>2</sub>	80-160	181-263	275-399
SM <sub>3</sub>	60-155	172-248	270-414
SM <sub>4</sub>	82-167	182-265	278-412
SM <sub>5</sub>	72-168	180-255	270-402
SM <sub>6</sub>	80-163	185-253	255-391
SM <sub>7</sub>	-----	-----	270-415

**Table S2:** The Herschel-Bulkley rheological parameters (yield stress ( $\tau_0$ ), flow index ( $n$ ), and consistency index ( $k$ ) for the silver conductive inks

Silver content (%)	Formulations	Yield stress ( $\tau_0$ )	Flow index ( $n$ )	Consistency index ( $k$ )	R <sup>2</sup>
0.5	SM <sub>1</sub>	0.96	0.551±0.015	0.158	0.94
	SM <sub>2</sub>	0.97	0.836±0.009	0.088	0.98
	SM <sub>3</sub>	0.72	0.595±0.011	0.145	0.96
	SM <sub>5</sub>	0.25	0.895±0.017	0.0004	0.96
	SM <sub>7</sub>	0.08	0.936±0.007	0.002	0.99
1	SM <sub>1</sub>	1.27	0.776±0.011	0.102	0.97
	SM <sub>2</sub>	1.37	0.657±0.050	0.090	0.75
	SM <sub>3</sub>	0.81	0.873±0.016	0.007	0.96
	SM <sub>5</sub>	0.31	0.958±0.038	0.0007	0.87
	SM <sub>7</sub>	0.094	0.644±0.011	0.003	0.97
1.5	SM <sub>1</sub>	1.63	0.509±0.015	0.222	0.93
	SM <sub>2</sub>	1.60	0.433±0.015	0.206	0.90
	SM <sub>3</sub>	0.86	0.454±0.015	0.196	0.92
	SM <sub>5</sub>	0.45	0.697±0.032	0.001	0.82
	SM <sub>7</sub>	0.102	0.647±0.011	0.012	0.97
2	SM <sub>1</sub>	3.33	0.617±0.023	0.123	0.90
	SM <sub>2</sub>	1.80	0.478±0.018	0.185	0.90
	SM <sub>3</sub>	0.91	0.526±0.015	0.164	0.93
	SM <sub>5</sub>	0.50	0.942±0.028	0.001	0.93
	SM <sub>7</sub>	0.106	0.982±0.014	0.0004	0.97
2.5	SM <sub>1</sub>	4.07	0.664±0.020	0.099	0.92
	SM <sub>2</sub>	1.90	0.667±0.014	0.141	0.95
	SM <sub>3</sub>	0.96	0.474±0.016	0.176	0.92
	SM <sub>5</sub>	0.59	0.768±0.019	0.003	0.94
	SM <sub>7</sub>	0.21	0.980±0.010	0.0008	0.96
3	SM <sub>1</sub>	4.29	0.628±0.022	0.108	0.90
	SM <sub>2</sub>	2,10	0.667±0.014	0.141	0.96
	SM <sub>3</sub>	0.98	0.713±0.023	0.006	0.91
	SM <sub>5</sub>	0.68	0.582±0.017	0.009	0.92
	SM <sub>7</sub>	0.26	0.723±0.020	0.003	0.93