

Figure S1 Particle size distribution of AWPU emulsions

Table S1 Properties of AWPU emulsions

Samples	Z-Average(nm)	PDI	Viscosity (mPa·s)	Zeta potential(mV)
AWPU-0	105.7	0.255	33.8 ± 0.2	-39.4 ± 0.4
AWPU-8	127.6	0.241	32.2 ± 0.4	-37.9 ± 0.3
AWPU-11	142.3	0.202	32.1 ± 0.3	-36.7 ± 0.5
AWPU-14	161.3	0.292	31.8 ± 0.2	-31.1 ± 0.4

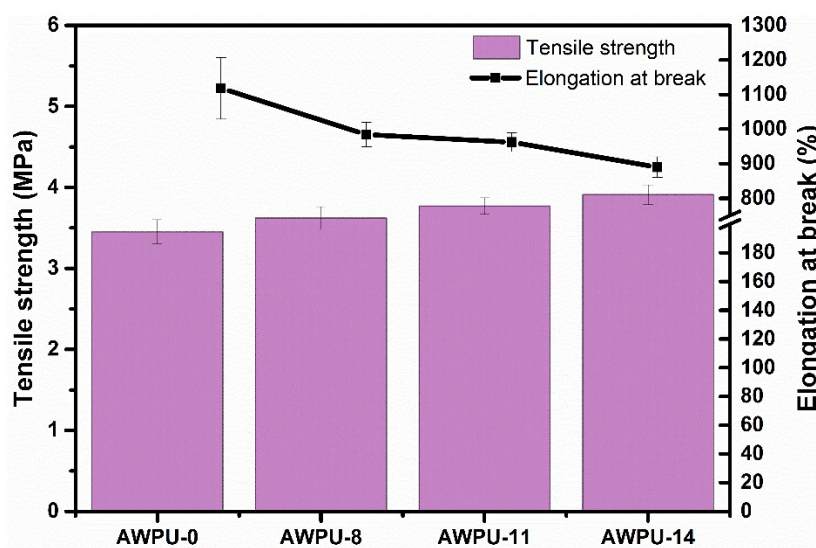


Figure S2 Mechanical properties of AWPU emulsions

Table S2 Strength and elongation at break data of microfiber leather

Samples	Tensile strength (MPa)	Elongation at break (%)
Control	12.48 ± 0.34	67.1 ± 1.1
I	14.87 ± 0.29	69.0 ± 1.3
II	13.33 ± 0.41	71.8 ± 1.2
III	14.14 ± 0.32	72.1 ± 1.3
IV	14.86 ± 0.35	75.4 ± 1.5