

Supplementary material –Density measurement

The density of gelatin was measured by dividing a given mass of gelatin M by a given volume V . Gelatin powder and hot-water were carefully weighed and combined and then placed into a graduated cylinder before being placed in a refrigerator for 24 hours ($\sim 2^\circ \text{C}$). Figure S1 reveals the density for the concentrations used in this study. Blue diamonds indicate the average of two different runs at similar C values, with the gray diamonds showing the individual runs. We also show our measurement for water with a red diamond (presented as $C = 0 \text{ wt\%}$, where the measurement was repeated five times) for comparison purpose. The calculation of the uncertainty bands for the gelatin case are based on the resolution of the weight balance and the graduated cylinder tick marks, whereas for the water case they are one standard deviation from five the different runs. The plot suggests that the density ρ increases slightly as the gelatin concentration C increases as expected. The mean value of the measured density ρ is presented in the manuscript.

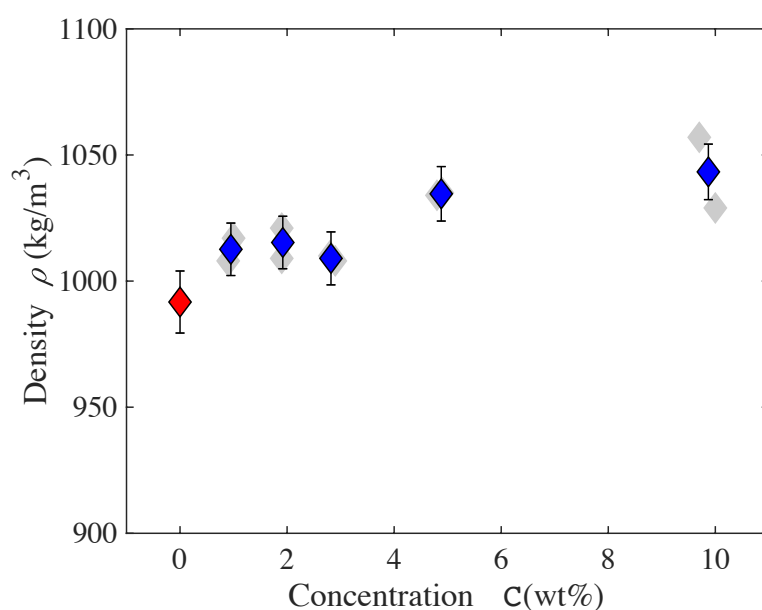


Figure S1. Measured density data of gelatin (blue diamonds) and water (red diamond). Grey diamonds indicate individual tests. One standard deviation for the red diamond (performed 5 times) is indicated. The uncertainty bands based on the resolution of the scale and graduated cylinder are indicated on each of the blue diamonds.