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Thermo-Mechanical and Swelling Properties of 3D-printed Poly (Ethylene Glycol) Diacrylate (PEGDA)/ SiO2 Nanocomposites

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FIG. S1 Set-up for the Tensile Test showing the sample clamped on both ends by the upper and lower gripping part of the testing machine.



FIG. S2 Set-up for the Compression Test showing the sample clamped on both ends by the upper and lower gripping part of the testing machine.



a)



b)

FIG. S3 FTIR spectra of unfilled PEGDA, PEGDA/SiO2 nanocomposite and SiO2 powder; a) whole spectra from 400 cm-1 to 4,000 cm-1; b) enlarged view showing SiOH bending at ~ 960 cm-1.

Table S1 Temperature Values for 10% and 90% Weight Loss

|  |  |  |
| --- | --- | --- |
| SiO2 content (%) | Temperature values for 10% Weight Loss (°C) | Temperature values for 90% Weight Loss (°C) |
| 0 | 338 | 438 |
| 1 | 338 | 440 |
| 3 | 352 | 449 |
| 5 | 385 | 458 |