

Article

Accelerated Aging Effect on Mechanical Properties of Common 3D-Printing Polymers

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Supplementary Materials

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Figure S1. 3D-printed part (dogbone) during tensile strength testing on Instron 8872 machine.

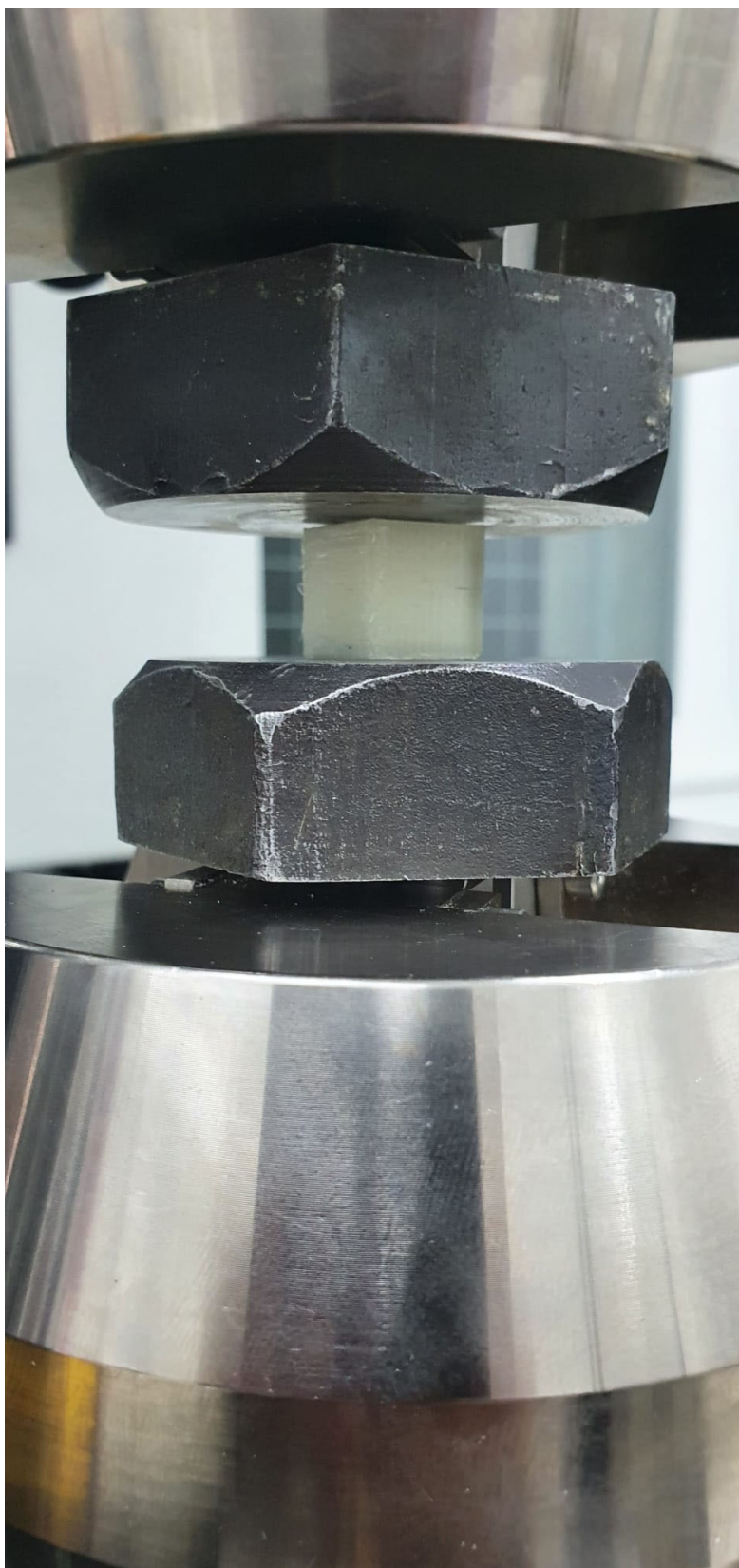


Figure S2. 3D-printed part (cubic) during compressive strength testing on Instron 8801 machine.

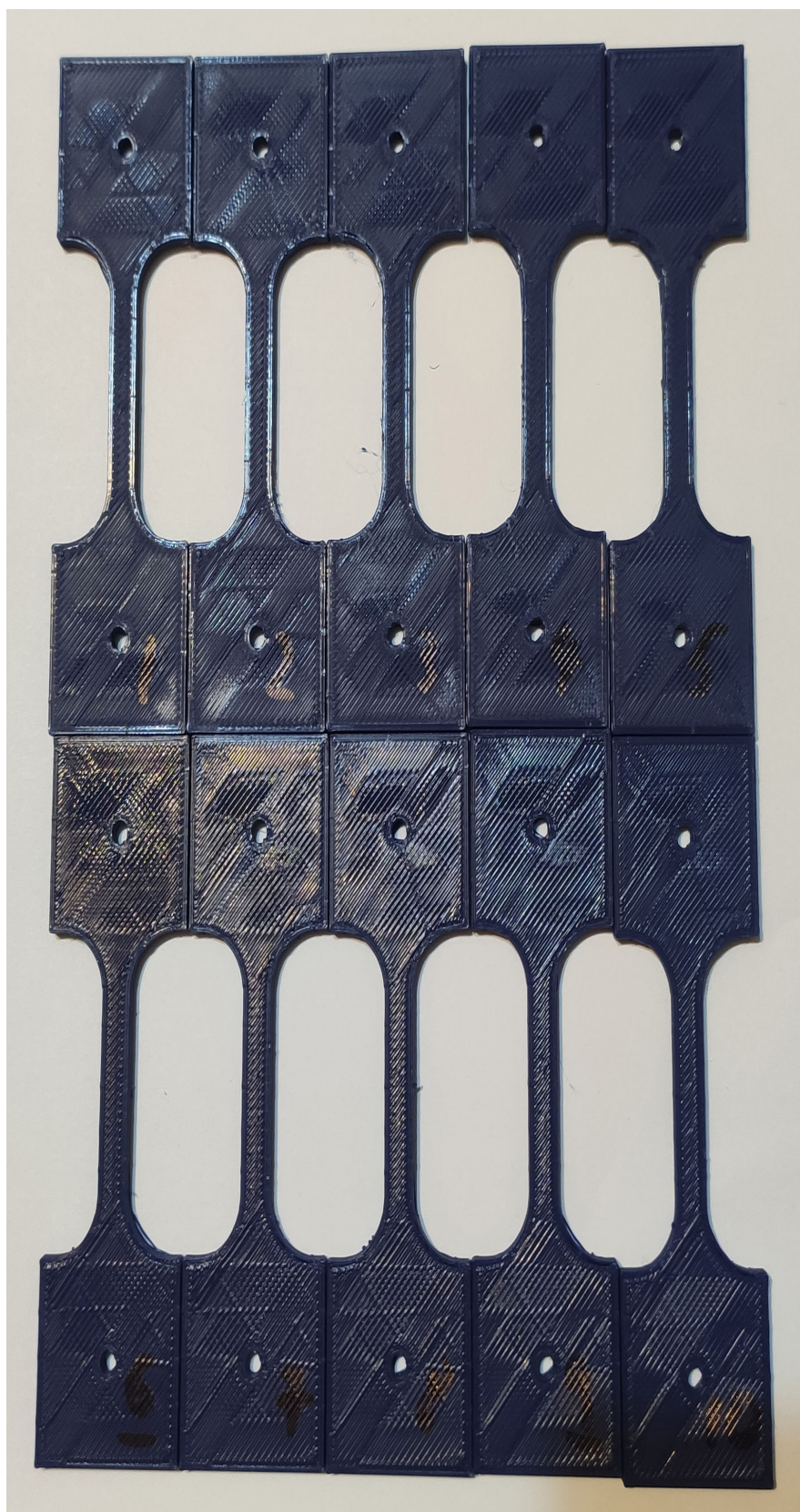


Figure S3. 3D-printed parts for tensile creep testing, from PLA.



Figure S4. 3D-printed parts for tensile creep testing, from PETG.

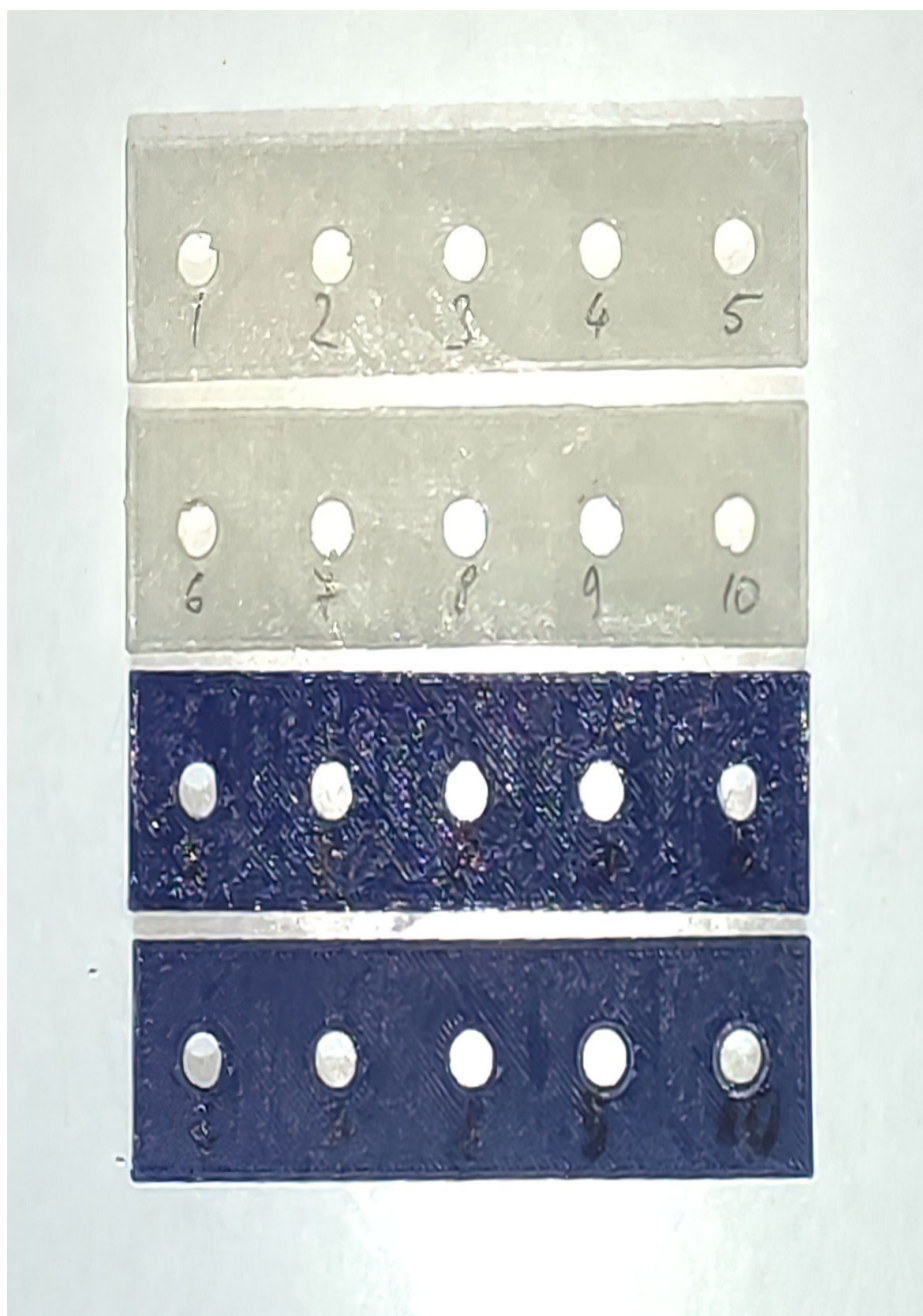


Figure S5. 3D-printed parts for practical compressive creep test, from PLA (blue) and PETG (transparent, white).

Table S1. Dimensional measurements.

	Tensile strength		Compression strength			Creep (tensile)		Creep (compress)	
	Width	Height	X	Y	Z	Width	Height	Y	Z
Nominal [mm]	13.00	4.00	15.00	15.00	15.00	5.20	3.00	25.20	8.00
PLA Control	13.292 ±	4.016 ±	15.602 ±	15.316 ±	15.018 ±	5.204 ±	3.000 ±	25.188 ±	8.076 ±
[mm]	0.015	0.009	0.022	0.011	0.009	0.006	0.004	0.006	0.013
PLA UV-B [mm]	13.268 ±	4.010 ±	15.588 ±	15.324 ±	15.034 ±	5.212 ±	3.004 ±	25.196 ±	8.092 ±
	0.030	0.010	0.029	0.007	0.010	0.005	0.005	0.007	0.017
PETG Control	13.336 ±	4.020 ±	15.648 ±	15.428 ±	15.016 ±	5.210 ±	3.014 ±	25.280 ±	7.604 ±
[mm]	0.014	0.005	0.020	0.010	0.005	0.008	0.005	0.012	0.004
PETG UV-B [mm]	13.360 ±	4.016 ±	15.770 ±	15.446 ±	15.020 ±	5.210 ±	3.012 ±	25.300 ±	7.604 ±
	0.014	0.005	0.046	0.013	0.010	0.004	0.006	0.013	0.005