

Materials List for:

# A Testing Platform for Durability Studies of Polymers and Fiber-reinforced Polymer Composites under Concurrent Hygrothermo-mechanical Stimuli

Antonio Gomez<sup>1</sup>, Robert Pires<sup>1</sup>, Alyssa Yambao<sup>1</sup>, Valeria La Saponara<sup>1</sup>

<sup>1</sup>Department of Mechanical and Aerospace Engineering, University of California, Davis

Correspondence to: Valeria La Saponara at [ulasaponara@ucdavis.edu](mailto:ulasaponara@ucdavis.edu)

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## Materials

Name	Company	Catalog Number	Comments
Aluminum 6061 rectangular bars	McMaster-Carr, USA	8975K268, 1668T72, 7062T17,	Part of testing platform
Aluminum 6061 90° angles	McMaster-Carr, USA	8982K91, 8982K14	Part of testing platform
440C stainless steel	McMaster-Carr, USA	6253K52	Part of testing platform
High-density polyethylene sheets	Tap Plastics, USA	N/A (0.236 in. thick x 10.75 in. wide x 16.75 in. long)	Part of testing platform
High-density polyethylene sheets	Tap Plastics, USA	N/A (0.354 in. thick x 6 in. wide x 10 in. long)	Part of testing platform
High-density polyethylene sheets	Tap Plastics, USA	N/A (0.354 in. thick x 6 in. wide x 16.75 in. long)	Part of testing platform
Polycarbonate sheets	Tap Plastics, USA	N/A (0.375 in thick, 11.5 in. wide, 17.5 in long)	Part of testing platform
Expanded polystyrene foam	Home Depot	Model # 310880 Internet # 202532855	Part of testing platform
Galvanized steel rope	McMaster-Carr, USA	3498T63	Part of testing platform
Steel eye bolt	McMaster-Carr, USA	3013T341	Part of testing platform
Low-carbon steel 90° angle	McMaster-Carr, USA	9017K444	Part of testing platform
Low-carbon steel rods	McMaster-Carr, USA	8920K84, 8920K75, 8920K231, 8920K135, 8920K84	Part of testing platform
Low-carbon steel tubes	McMaster-Carr, USA	6527K314, 8910K394, 8910K395, 8920K94	Part of testing platform
304 stainless steel U-bolt	McMaster-Carr, USA	8896T104	Part of testing platform
Steel pulley	McMaster-Carr, USA	3099T34	Part of testing platform
1008 carbon steel sheets	McMaster-Carr, USA	9302T113	Part of testing platform
Light duty swivel casters	Harbor Freight, USA	41519	Part of testing platform
100-lbf Vinyl Weight Set	Overstock.com	11767059	Part of testing platform
Closed-cell polyurethane foam	General Plastics, USA	FR-3704	Testing samples
Deionized water	Faucet, PurLab filtering system	N/A	Conditioning fluid of tank
Torsional spring	Retractable Key Clip, Ebay, USA	Lot 10	Used to build string potentiometer
Kevlar thread	Cabela's	IK-321909	Used to build string potentiometer
10 kOhm potentiometer	Ebay, USA	3590S-2-103L	Used to build string potentiometer
Digital multimeter	Harbor Freight, USA	98674	Used to take resistance measurements of string potentiometer