

# Experimental Measurements of Nylon Coil Spring Properties for Validation of Numerical Models

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**Abstract.** Nylon coil springs are thermally controlled linear actuators. They have a perspective application as artificial muscles. This article describes thermal experiments that were conducted on samples to determine thermal properties of these coiled springs. The experiments were performed in a temperature regulated environmental chamber. Measurements correctly shown negative value for the coefficient of apparent thermal expansion. Results of these experiments will be used to validate numerical models.