

# Materials Testing

STRUCTURAL TESTS TO CHARACTERIZE THE BEHAVIOR OF MATERIALS AND ELEMENTS UNDER LOAD



## KEY WORDS

TEST,  
STRUCTURE,  
MATERIAL

## DESCRIPTION

In the Structures Laboratory, we conduct tests to understand the behavior of materials and structural elements under load. We support teaching, research, and testing for third parties, from concrete specimens to full-scale walls with quasi-static loads that simulate seismic activity. We adapt the setups to each need, providing load-deformation curves, hysteretic cycles, stiffness/strength characterization, and sensor calibration.

## AVAILABLE TECHNIQUES AND/OR EQUIPMENT

- Load frames of different tonnage, configurable for standard test specimens and special assemblies.
- Hydraulic cylinders for compression and tensile testing.
- 70-ton hydraulic actuator for full-size wall testing with cyclic loading.
- Universal data acquisition: load cells, LVDTs/displacements and strain gauges

## APPLICATIONS

- Evaluation of materials and structural components
- Standard and customized testing
- Applied research in structural engineering
- Support for university teaching

## CONTACT US

[edison.atencio@pucv.cl](mailto:edison.atencio@pucv.cl)  
[sebastian.lozano@pucv.cl](mailto:sebastian.lozano@pucv.cl)

[Pontificia Universidad  
Católica de Valparaíso](#)