



LABORATÓRIO NACIONAL  
DE ENGENHARIA CIVIL

TESTING  
and METROLOGY

UCEst

Structural Behaviour  
Laboratory

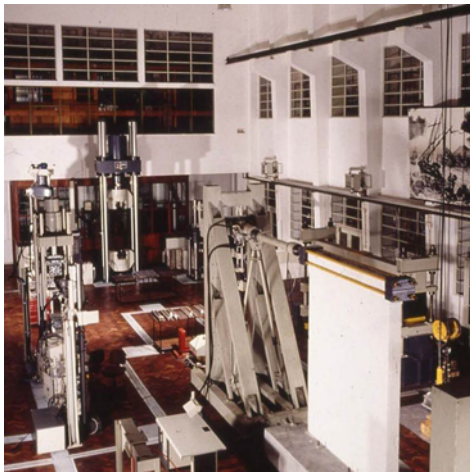
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## Scope

The Structural Behaviour Laboratory (UCEst) is integrated in the Structures Department/ Structural Behaviour Unit of LNEC.



Its origins go back to the 50s of the XX Century, then called Structural Testing Laboratory. Apart from the accumulated experience and know-how, the variety and capacity of its testing equipment provides this laboratory with high versatility. The UCEst carries out mechanical compression, bending and shear tests.



## Field of expertise

The UCEst performs (among others) the following tests for the mechanical characterisation of structural products:

- Several tests on pre-fabricated reinforced/prestressed concrete elements
- Compression tests on manholes and manhole covers;
- Several tests on insulation and coating panels;
- Compression, sliding and distortion tests on bearing apparatuses;
- Compression, bending and tensile tests on several products;
- Scaffolding tests;
- Tests on pre-stressing systems;
- Tests on cover plates.



The UCEst conducts (among others) the following tests for the mechanical characterisation of structural systems:

- Tests on structural connections;
- Vertical and diagonal compression tests on masonry walls;
- Pull-out tests on concrete reinforcing bars;
- Pull-out tests on concrete sleeper bushings.

## Highlights

Apart from the tests listed above, the UCEst also develops activities in distinct fields, such as:

- Research and development studies and projects within the scope of the characterisation of construction materials, products and systems;
- Support to the construction sector.