LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL

TESTING and METROLOGY

UAPM

Product Evaluation and Timber Systems Laboratory

MATERIALS DEPARTMENT

Av. do Brasil 101 • 1700-066 Lisboa • PORTUGAL
tel. (+351) 21 844 30 00 lnec@lnec.pt

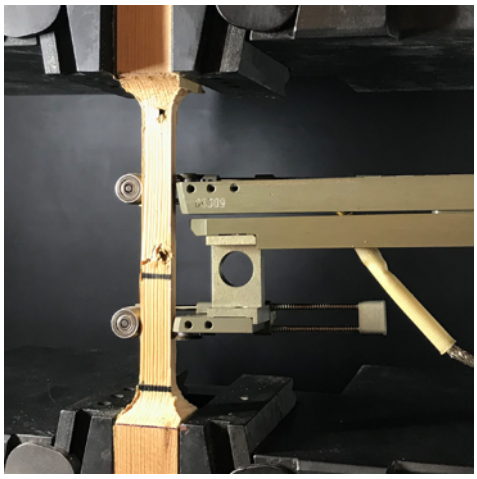
www.lnec.pt

Scope

The Evaluation of Timber Products and Systems Laboratory (UAPM) is part of the Conservation of the Natural and Built Heritage Unit, belonging to the Materials Department of LNEC.

UAPM supports the development, characterization, compliance testing and certification of wood based products, as well as wood-based construction systems.

UAPM also develops activity in the scope of building survey and assessment, including inspection, monitoring, sampling, on-site and laboratorial testing, to support the production of expert reports.



Field of expertise

UAPM performs laboratory tests (according to European and national standards) on the following materials and products:

- Timber Structures
- Clear wood
- Wood-based panels
- Glued laminated timber
- Flooring products

The current experimental capacity allows tests to be carried out at room temperature or at elevated temperatures (up to 250ºC).

UAPM also develops activity in the scope of contract and programmed research work in other topics, namely on structural reinforcement techniques and structural timber connections.

UAPM also provides support to Master and Doctoral thesis.

Highlights

Production of the Draft Portuguese standard (prNP) on the visual strength grading of Sugi timber for structural applications, following the reference European standards. The proposed grading methods is based on the relation between severral timber features and the physical and mechanical properties of this timber.

Following the above, another study was carried out relating a thermo-hydro-mechanical treatment of Cryptomeria japonica wood, as a way to increase the competitiveness of this wood in the construction market, for non-structural applications, namelly for flooring and panelling for internal walls.

Setor de Divulgação Científica e Técnica do LNEC / 2025