# Structural Investigations of Complex Systems

The Institut für Holztechnologie Dresden (IHD) and its associated Entwicklungs- und Prüflabor Holztechnologie (EPH) provide a wide range of physical investigations of structural systems, structural shells and building materials. Thereby, special emphasis is put on systems made of solid wood, wood-based materials and other material combinations for walls, floors and roofs/ceilings. State-of-the-art measuring technology and laboratory facilities are available for that purpose to simulate the behaviour of structural components. The workgroup of "Structural Physics" consisting of experts from various fields (civil engineering, physics and wood-processing technology) interdisciplinarily deal with complex issues in a swift and reliable way.

Examples from our scope of services

- Testing of solid wood acc. to EN 408 and of wood-based materials acc. to EN 789

- System testing of load-bearing floors acc. to EN 1533 and of wood-based materials acc. to EN 12871

System testing machine – testing of a complete ceiling structure

- Determination of thermal transfer resistance acc. to EN 12664/ EN 12667

- Testing of glues for non-load-bearing and load-bearing applications
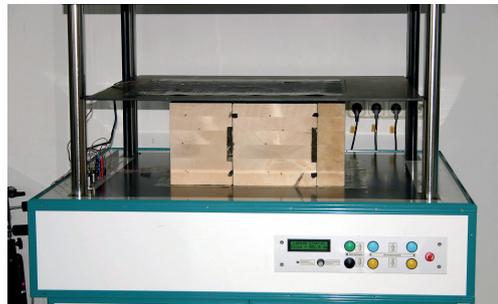
Double-plate device – determination of the thermal transfer resistance of log-house walls (principle)

- Weak-point analysis of building structures (e.g., thermography)

- Testing of insulating material on the basis of European standards

- Determination of water vapour permeability acc. to DIN EN ISO 12572

Thermography – weak-point analysis of windows

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