

# Physical-mechanical Tests on Furniture Components

Mechanical resistance and durability are essential characteristics of high-quality furniture. They arise from the intelligent combination of high-quality components such as surface materials, adhesives and fittings with suitable materials (wood, wood-based materials, plastics, metals). Also sitting and laying comfort of cushioning materials as well as the durability of cushioning characteristics can be determined prospectively by physical test procedures. Use the know-how of our experts for the proof of quality of your materials, components and connectivity solutions.

## Examples from our scope of supply

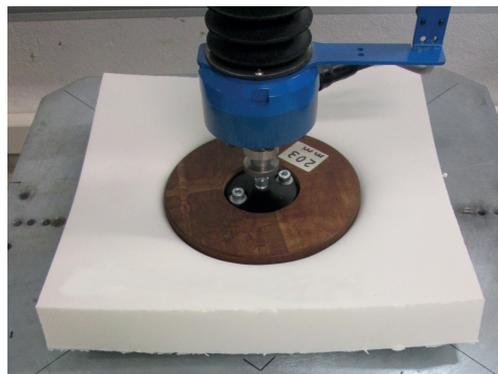
- Physical and mechanical properties of substrate
  - EN 310 (bending properties)
  - EN 311 (surface soundness)
  - EN 317 (thickness swelling)
  - EN 319 (internal bond strength)
  - EN 320 (axial withdrawal of screws)
- Moisture resistance
  - EN 321 (cyclic test)
- Connection tests
  - EN 13446 (withdrawal capacity of fasteners)
  - glue-lines
- Fatigue test of material and fasteners, dynamic test of components
- Coating tests
  - EN 1464 (peel resistance of adhesive bonds)
  - EN ISO 4624 (Pull-off test for adhesion)
- Flexible cellular polymeric materials
  - EN ISO 845 (raw density)
  - EN ISO 1798 (tensile strength)
  - EN ISO 1856 (compression test)
  - EN ISO 1923 (linear dimensions)
  - EN ISO 2439 (indentation hardness)
  - EN ISO 3385 (constant load test)
  - EN ISO 3386-1 (compressive stress)
  - EN ISO 8307 (rebound resilience)
  - ISO 13362 (wet compression set)
  - ISO 24999 (constant-strain procedure)
  - DIN 53579 (indentation test)
  - NFT 56-114 (compression test)
  - TL 918281 (approval test DB AG)
- Furniture fittings
  - EN 12527-29 (wheels and rollers)
  - EN 15338 (pull-outs)
  - EN 15570 (hinges)
  - EN 15706 (sliding door fittings)
  - EN 15828 (flap holder)
  - EN 15939 (cabinet suspension brackets)
  - EN 16014 (furniture locks)
  - EN 16337 (shelf supports)
  - DIN 68501 (cabinet connectors)



*Fatigue test of corner joint*



*Peel resistance test*



*Determination of foam indentation hardness*

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Statical test methods

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Dynamical test methods

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