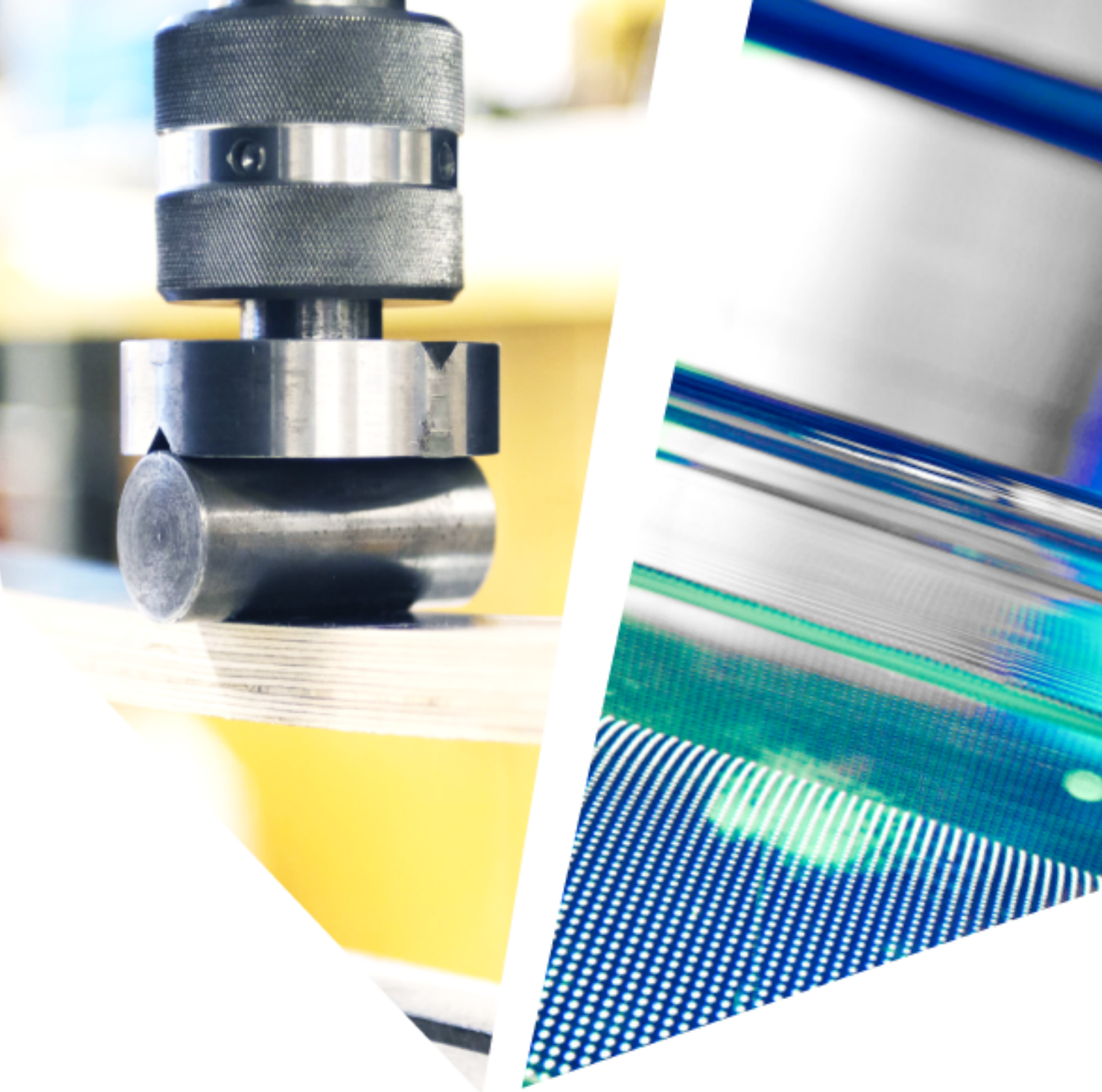

Wood Laboratory Services

LAB University of Applied Sciences

Wood Products Testing and Expert Services

Strength properties

Wood-based panels. Determination of modulus of elasticity in bending and of bending strength	EN 310
Wood-based panels. Determination of edgewise bending properties	EN 13879
Timber structures. Test methods. Determination of mechanical properties of wood based panels	EN 789
Timber structures. Structural timber and glued laminated timber	EN 408
Determination of some physical and mechanical properties	EN 314-1
Plywood. Bonding quality. Part 1: Test methods	
Plywood. Bonding quality. Part 2: Requirements	EN 314-1
Adhesives. Wood adhesives for non-structural applications. Determination of tensile shear strength of lap joints	EN 205
Particleboards and fibreboards. Determination of tensile strength perpendicular to the plane of the board	EN 319
Timber structures. Structural timber and glued laminated timber. Determination of some physical and mechanical properties	EN 408

Weather and moisture resistance, surface testing

Wood-based panels. Melamine faced boards for interior uses. Test methods	EN 14323
Wood-based panels. Determination of moisture resistance under cyclic test conditions	EN 321
Particleboards. Determination of moisture resistance. Part 1: Boil test	EN 1087-1
Particleboards and fibreboards. Determination of swelling in thickness after immersion in water	EN 317
Wood based panels. Determination of dimensional changes associated with changes in relative humidity	EN 318
Wood-based panels. Determination of moisture resistance under cyclic test conditions	EN 321
Wood-based panels. Surface soundness. Test method	EN 311
Fibreboards. Determination of surface absorption. Part 1: Test method for dry process fibreboards	EN 382-1
Fibreboards. Determination of surface absorption. Part 2: Test method for hardboards	EN 382-2
Wear, scratch and abrasion resistance of coatings	EN 438-2
Wood flooring and wood panelling and cladding. Determination of the resistance to chemical agents	EN 13442
Plastics. Film and sheeting. Determination of the coefficients of friction (friction coefficient for plastic coatings)	EN ISO 8295

High- pressure decorative laminates (HPL). Sheets based on thermosetting resin (usually called laminates). Part 2: Determination of properties	EN 438-2

- Resistant of surface wear
- Determination of flatness
- Assessment of appearance
- Resistant to abrasion (flooring grade laminates)
- Resistant to immersion in boiling water
- Resistant to water vapour
- Resistant to dry heat
- Dimensional stability at elevated temperature
- Resistant to wet heat
- Resistance to crazing (Compact laminates)
- Resistance of scratching
- Resistance to cracking under stress (laminates ≤2mm thick)
- Determination of the microscratch resistance (Martindale)

Other tests

Particleboards and fibreboards. Determination of resistance to axial with drawal of screws	EN320

Product Development testing end Expert Services

- Quality Control, materials and products
- Compliance Statement, Standards and Regulations
- Material Technology Consulting

Other Services

- CNC Machining
- Laser cutting and -engraving
- Mold Pressing with vacuum and molding technology
- Preparation of test panels (plywood, chipboard, other wood panels)
- Studies of wood panels strength properties
- Wood material drying and heat treatment, drying/ heat treatment trials
- Microscopic studies and photographing
- Weathering Tests (comparative research)
- L*a*b measurements

Test devices

- Shimadzu AG-IC 100kN, 2 pcs, tensile, compression and bending machine, a wide range of accessories for wood and board and engineered product industry tests
- Hot/ Cold Press 700 x 700 mm, maximum power 1800 kN, measuring accuracy 0.1 mm, temperature range 20 - 250 ° C
- Veneering Press 2500 x 1100 mm, temperature range 20 – 160 °C
- CNC Machining Centers,Homag, 3-axis, cutting zone 3000 x 1300 mm
- Gluing drum for chipboard manufacturing
- Veneer Lathe, maximum veneer width 830 mm, veneer thickness 0.8 to 3.0 mm
- Drying – and Heat Treatment Chamber, TekmaWood, max dimensions of load (l,w,h) 2250 x 800 x 1000 mm, temperature range 20 – 220 °C
- Laser Cutter GCC Spirit LS 100W, cutting zone 640 x 460
- UV Chamber, 160W UVA-350
- Arctest-500, climate chamber temperature range – 40 …+120°C, RH 10-100 %
- Arctest-500, climate chamber temperature range – 20 …+150°C, RH 10-100 %
- Stereo Microscope Zeiss Axiolab
- Microscope Camera Zeiss AxioCam
- Konica Minolta CR-200, Chroma Meter
- In addition, there are plenty of equipment for woodworking machines and laboratory equipment