



Facilities and Services

Testing facilities, Paper and Board Research at Wageningen UR

Fibres, pulp, paper and board are analysed for different purposes by standard or specially developed methods. For more detailed information go to www.paperandboard.nl

Fibre testing

- Chemical composition
- Cellulose crystallinity (WAXS)
- Cellulose degree of polymerisation (DP)
- Microscopy (light, (E)SEM)
- FTIR, (solid state) NMR

Pulp Testing

- Flexibility (Cyberflex)
- Relative Bonded Area (Cyberflex)
- Surface area fibres and fines, hydration/swelling, compressibility (DAS Jar 400)

Paper testing

Conditioning and testing at different and / or under changing atmospheres (10~95% r.h at -20~60°C)

Physical properties

Strength properties

- Tensile properties (also Z-direction)
- Bending stiffness
- Wet web strength
- Puncture test
- Creasability test
- Compressive strength (FCT, SCT)

Permeability and absorption properties

Optical properties

Microbiological properties

Packaging testing

- Transport simulation, variable conditions
- Gas permeability system
- Water vapour permeability
- Modelling of cardboard packaging

Coating testing

Developing and improving coatings:

Size press, Lab. coaters

- Adhesion
- Flexibility
- Hardness and abrasion
- Contact angle measurement
- Gloss and printability

Pulping and Refining

Chemical, Alkaline and solvent pulping:

- 20 l reactor vessel
- flow-through reactor
- Continuous pressurised TMP, CTMP, APMP experiments:

- 12" refiner

Low-consistency refining:

- Atmospheric 12" refiner
- Cleextral BC45 twin screw extruder for (chemi-) mechanical processing of various fibre raw materials

Bleaching Technology

Oxidative and reductive bleaching sequences (ECF) TCF):

- Quantum Mark V Laboratory Mixer/Reactor

Enzym technology / Microbiological

- Fibre modification
- De-watering
- Porosity

Information

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