NOVITOM

Advanced Analytical and 3D-imaging Services

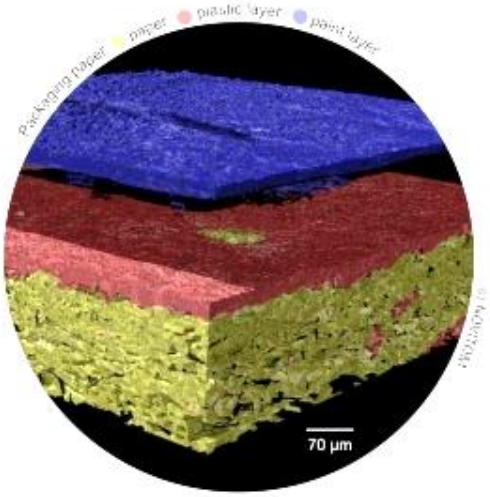
Without any staining or marking, non-destructive
Ultimate analysis of fibrous materials

Composites & Plastics
Food and Agro-products
Metallurgy & Ceramics
Cosmetics
Oil & Mining
Pharmaceuticals
Tissues and biomaterials

Wood, Paper & Textiles

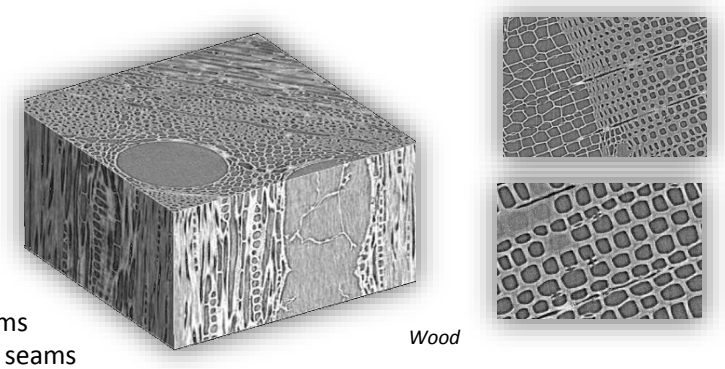
Scan

- Wood, Paper, Textiles, Fibrous materials
- Multi-component fibres
- Intelligent Composite materials
- Multilayer woven structures
- Filtration media
- Packaging and Conditionning



Analyse

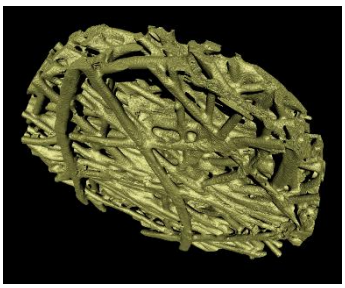
- Direct size measurement of components and volume fraction of each phase, including porosity
- Spatial distribution of fillers, fibres, additives, etc.
- Quality of impregnation of matrix reinforcement
- Interface between fibres, matrice and coating
- Fibre orientation and connectivity
- Advanced structural and chemical characterization
- Failure analysis (cracks, voids, delamination)
- Microscopic effects of aging, fatigue, friction, stress, chemical or thermal treatments
- Real time *in situ* monitoring: temperature,, mechanical stress, water swelling, impregnation



Wood

Control

- Micro-structural parameters
- Coatings, impregnation, interfaces, welding, seams
- Quality of interfaces, adhesives, glues, weldings, seams
- 3D weaving and braiding
- Life cycle of products
- Efficacy of recycling process



Impregnation of gel in a fibrous mesh

Predict

- Influence of fibrous sizing on the quality of final compounds
- Modeling permeability in real microstructures
- Relationship between microstructure and mechanical or physical properties
- 3D modeling and simulation of dynamic behaviour of fibres under mechanical stress

NOVITOM *is the first full-service provider to specialise in 3D micro-imaging and micro-analyses powered by synchrotron technology. Novitom's innovative techniques go way beyond standard laboratory methods and use advanced non-destructive characterization tools to reveal the inner micro-structure of materials and products, with an exceptional level of quality and detail.*

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