

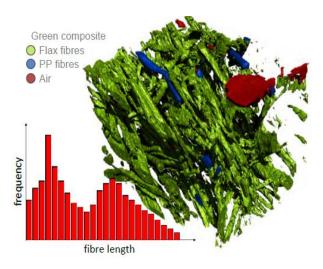
Without any staining or marking, non-destructive Ultimate analysis of polymer-based materials

Composites & Plastics

Food and Agro-products
Metallurgy & Ceramics
Cosmetics
Oil & Mining
Pharmaceuticals
Tissues and biomaterials
Wood, Paper & Textiles

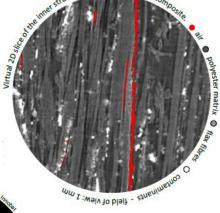


- Composites: all types incl. carbon/carbon
- Reinforced elastomers
- Plastic pieces
- > Polymer foams
- Polymer fibres
- Polymer resin, gels
- > Filtration media
- Packaging and Conditionning





- Granulometry and distribution of fillers and additives
- Fibre orientation and connectivity
- Quality of impregnation of matrix reinforcement
- Failure analysis (cracks, voids, delamination)
- Coating, interfaces, adhesion
- ➤ Micro-metrology of complex pieces
- > Local orientation of chains
- Crystallinity degree of semi-crystalline polymers
- Microscopic effects of aging, fatigue, friction, treatments
- ➤ Real time *in situ* monitoring: temperature, mechanical stress, water swelling, impregnation





- Micro-structural parameters
- Interfaces, coatings, fillers
- Quality of impregnation
- Detection of cracks, defects
- > 3D porosity
- > Identification of contaminants
- Manufacturing processes





- Mechanical and physical properties
- Multi-scale behaviour
- Micro-mechanical interactions
- Forming process parameters
- Causes of failures

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.