

WHAT WE OFFER : SERVICES & EXPERTISE

- Characterization / test / analysis realized by highly qualified UCLouvain members
- Processing of polymers and composites, ranging from extrusion to 3D printing, RTM/SQRTM
- Characterization of polymers and composites, including thermal, rheological, mechanical and thermomechanical analyses
- Technical advice and consultancy
- Training for R&D engineers from the industrial sector

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Polymer Processing & Characterization



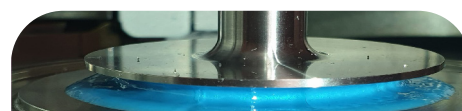
Polymer Processing

- Lab bench twin screw extruders with the option of water assisted extrusion with accessories such as pelletizer, injection molding system and filament and film spooler
- 3D printer machines adapted for conventional thermoplastics as well as for high performance one (PES, PEI, PEEK) (max temperature: 430°C)
- Resin Transfer Molding (RTM) / Same-Qualified RTM (SQRTM)



Thermal analysis

- Differential scanning calorimetry (DSC)
- High pressure DSC (HPDSC) max. 100 bars
- Thermogravimetric analysis (TGA)
- Flash DSC



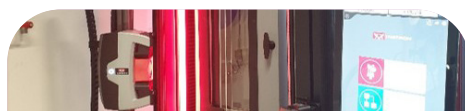
Rheological analysis

- **Shear rheology**
- **Stress/Strain controlled shear rheometers**
For melts, solutions and suspensions, oscillatory shear measurements, creep-recovery tests and nonlinear shear tests
- **Extensional rheology**
Measurements on the filament stretching rheometer (Vader1000) or on the Extensional Viscosity Fixture (EVF)



Thermomechanical analysis

- Dynamical mechanical analysis (DMA): various deformation modes (shear, tensile, bending, etc.) from -150°C to +350°C
- Thermomechanical analysis (TMA) from -150°C to +350°C



Material testing

- Tensile machine with 100N and 10kN cell force
- Non-contacting video extensometer
- Temperature chamber (-100°C to +350°C and cooling device for LN2)

CONTACT

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Picture credits : P2C - Yvan Flamant

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