

Our competence

Applied research is one of the most important tasks of the Department of Polymer Engineering and Science. The close cooperation with companies enables direct implementation of new scientific findings to industrial practice. Due to our experience in processing, material analysis and tests, and the wide range of testing methods we are able to solve various types of problems.

In the field of Material Data Determination, the services provided range from rheological and thermodynamic material data determination of polymer melts, Wood Polymer Compounds (WPC) and PIM-Feedstocks to exploring of cases of damage and the development of customized polymer blends.

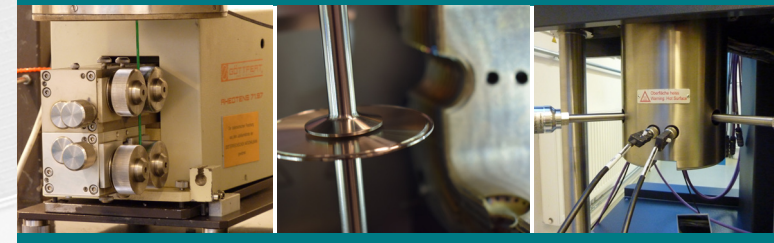
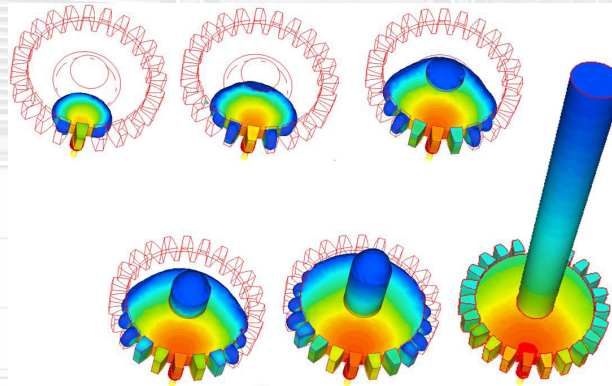
We work closely together with all departments of the Montanuniversität as well with the Polymer Competence Center Leoben (PCCL). Therefore, we can offer our customers the best support for questions in processing, testing and analytical problems.



Dr. Ivica Duretek
Head of Material Data Determination
Polymer Processing
+43 3842 402 3518
ivica.duretek@unileoben.ac.at
www.kunststofftechnik.at



Fast order processing
Comprehensive benefits catalogue
Modern equipment
Many years of experience



**MATERIAL DATA
DETERMINATION**
Our Service - Your Success

Services

- Material data for injection moulding- and extrusion simulation
- Rheology
- Characterisation and identification of polymers
- Thermal analysis
- Dynamic mechanical analysis (DMA)
- Failure analysis
- Solving processing problems
- Consultation and training

Contact

Department Polymer Engineering and Science Leoben
at Montanuniversität Leoben
Institute of Polymer Processing

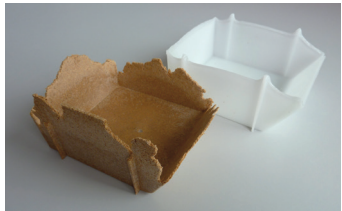
Otto Glöckel-Straße 2, 8700 Leoben, Austria
+43 3842 402 3503
kv@unileoben.ac.at
www.kunststofftechnik.at



www.kunststofftechnik.at

Equipment

- Rotational rheometer MCR 702 MultiDrive (Anton Paar)
- High pressure capillary rheometer Rheograph 2002 and RG50 (GÖTTFERT)
- Machine rheometers
 - Leistritz inline rheometer
 - injection moulding machine rheometer
 - PIM-injection moulding machine rheometer
- Elongational tester RHEOTENS 71.97 (GÖTTFERT)
- Thermal conductivity analyzer K-System II and TCi (C-Therm)
- Differential scanning calorimeter DSC1 und Flash DSC+ (Mettler Toledo)
- pvT-tester pvT100 (SWO Polymertechnik)
- Measuring mixer: Lab Station EC, E50 EHT, W350 E (Brabender)



Our services

Rheological measurements:

- Viscosity as function of pressure, temperature and shear rate
- Shear viscosity (ISO 11443)
- Complex viscosity (ISO 6721)
- Transient elongational viscosity (ISO 20965)
- Extensional behaviour und melt strength (RHEOTENS)
- Magnetorheology
- Investigation of wall slip in polymer melts
- Measuring flow properties under processing conditions
- Measuring of thermoplastics, elastomers, feedstocks for Powder Injection Moulding (PIM), Wood Plastic Composites (WPC), reactive systems, low viscous substances (food, oils...)

Thermodynamic material data:

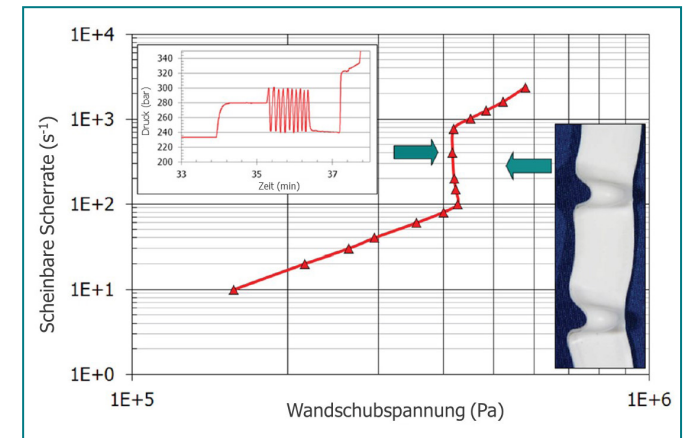
- Thermal conductivity as function of temperature (ASTM D5930, ASTM D7984) and pressure (ASTM D5930)
- Specific heat capacity (ISO 11357)
- Specific volume as function of pressure and temperature (ISO 17744)

Dynamic-mechanical thermoanalysis:

- Characterisation of reactive or solid specimens from room until softening temperature

Consulting:

- Selection and implementation of appropriate measurement methods and instruments for control and quality assurance (QA)
- Determination of practice-oriented material data
- Support in cases of damage through failure analysis of moulded parts and semi-finished products



Complete thermodynamic and rheological material datasets for simulations!

