

## Your benefits

- A wide range of processes and methods of analysis
- Identification of production defects
- Rapid determination of causes in case of damage
- Stable and efficient design of production processes
- Development of recommendations for action for new projects
- Sustainability
- Use of production test benches
- Low unit costs
- Deliverability

## Analytics of thin Layers

The base for the development of  
mold coatings

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## Knowledge creates progress

Knowledge about materials, chemical properties and coating systems is the base for a continuous technical development. In current production projects in plastics processing this knowledge is used to identify and eliminate faults. In new projects sources of error can be detected, eliminated and excluded in advance of production. The analytics contribute to making processes stable and efficient.

### We support you

- with the thin layer analysis and the development of recommendations for action
- in the material analysis, through the examination of steels, non-ferrous metals and ceramics used
- in the analysis of chemical systems
- in the application-oriented use of materials
- in the analysis of additives
- in the definition of requirement profiles



**Your direct line  
for questions.**

## Most modern analysis technology

The Gemeinnützige KIMW Forschungs-GmbH has a wide range of analytical equipment for the qualification of metallic/ceramic thin layers. For example, the micro-hardness and wear resistance as well as the coating composition and surface topography can be analysed. In order to simulate processes realistically, various operating test benches are also available (e.g. demoulding force measurement, emission measurement, tribological measurement or indexed thermal conductivity measurement). In addition, interdisciplinary tests can be carried out in the accredited test laboratory of KIMW Prüf- und Analyse GmbH. Furthermore, spectroscopic and chromatographic procedures, thermal analysis methods and various imaging techniques are available.

## Our range of services in thin-layer analytics

- Incident and transmitted light microscopy, Scanning electron microscopy (SEM), White light interferometry
- Elemental analysis (SEM-EDX), X-ray fluorescence analysis (XRF)
- Electrochemical impedance spectroscopy (EIS)
- Microhardness, adhesion and friction value analysis by means of microindenter and scratch tester
- Rockwell penetration testing
- Wear tests, abrasion tests
- Thermal diffusivity measurement

Also possible via the accredited laboratory:

- DSC, TGA, TMA, DMA
- GPC, GC-MS, Headspace-GC
- Raman, infrared and UV-vis spectroscopy

