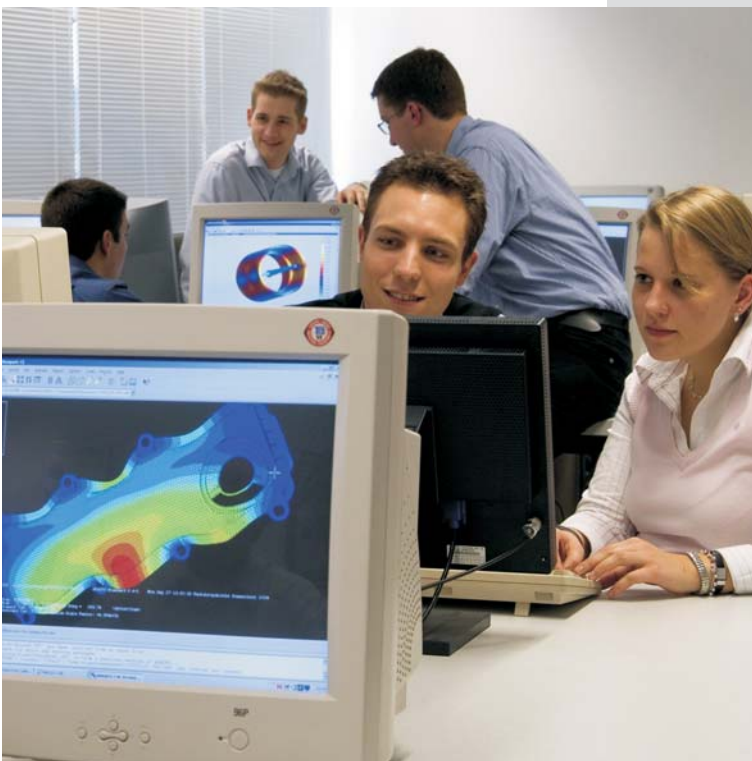


# RUBBER TECHNOLOGY





The IKV building at Seffenter Weg 201 which houses the Rubber Technology department (top)

Virtual part design (bottom)

## FROM THE IDEA TO THE PRODUCT

The exceptional requirements that have to be fulfilled in the production of rubber parts are illustrated by the complex formulation of the rubber compound already. Only when the numerous ingredients are suitably coordinated is it possible to obtain rubber products with a property profile that meets the requirements. Apart from the formulation, the properties of the part are also influenced by the mixing process and the further processing such as injection moulding or extrusion. Mechanical properties can be measured in subsequent part tests which provide key assistance in the computer-aided dimensioning of future parts and assist in achieving optimum process parameters.

The IKV has been researching the complex process chain of rubber processing for more than 30 years. And, in our daily work, we benefit from an environment in which all the key polymer technology processes are available and where synergies arise as a matter of course.

## FROM KNOWLEDGE TO SUCCESS

Our young, highly-qualified engineers work on practically-oriented research projects in interdisciplinary teams. The IKV has been developing integrated solution concepts in this way for many decades, paying due consideration to the correlations that exist between the material, the process and the product. The results are implemented on our state-of-the-art laboratory machines and on our partner companies' production lines.

## SERVICES FOR INDUSTRY

Practically-oriented research features prominently in our everyday work. In research projects funded by the public purse and bilateral projects with partners in industry, we work on solutions to the problems encountered in the plastics industry.

Benefit from working together with one of the most renowned research institutes in the plastics sector. Make use of both our human resources and our technical facilities for your company. Our expert knowledge, acquired and documented over a period of many decades, is at your disposal.

Arrange an appointment with us to discuss your current problems – we'll be pleased to draw up a non-binding quotation for you.

# RUBBER TECHNOLOGY

## FIELDS OF EXPERTISE

### COMPANY ORGANISATION

- consulting
- start-up management
- benchmarking
- intercompany comparison

### TECHNICAL CONSULTING

- technological consulting
- process (chain) analysis
- process optimisation
- profitability analysis

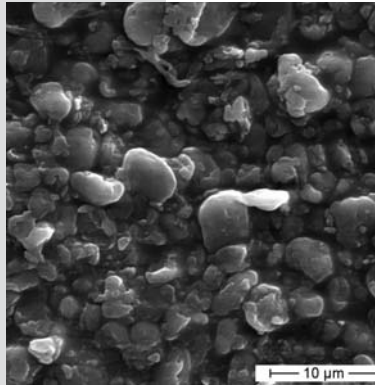


### COMPOUND ANALYSIS

- rubber process analyser (RPA)
- Mooney viscometer
- tensile tests
- microscopy

### RUBBER COMPOUNDING

- process development
- discontinuous compounding
- continuous compounding
- process analysis

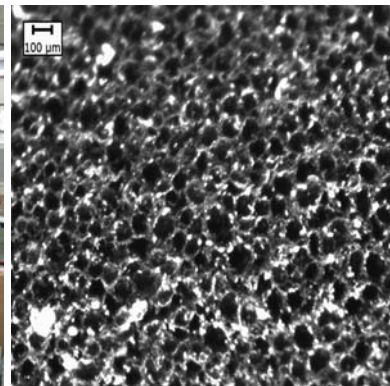


### LABORATORY EXTRUSION

- material selection
- process development
- process optimisation
- quality control

### CELLULAR RUBBER

- sponge rubber extrusion
- physical blowing agents
- chemical blowing agents
- sponge rubber analyser (SRA)



### INJECTION MOULDING PROCESS

- LSR/rubber processing
- process development
- process optimisation
- process simulation

### SPECIAL INJECTION MOULDING TECHNOLOGY

- physical foaming
- gas injection technique
- micro injection moulding
- sandwich injection moulding

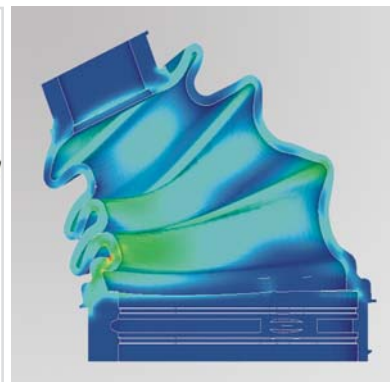


### INNOVATIVE RUBBER TESTING TECHNIQUES

- development of testing techniques
- materials testing
- lifetime analysis
- component testing

### VIRTUAL PRODUCT DEVELOPMENT

- product innovation
- design
- material modelling
- FEA analysis



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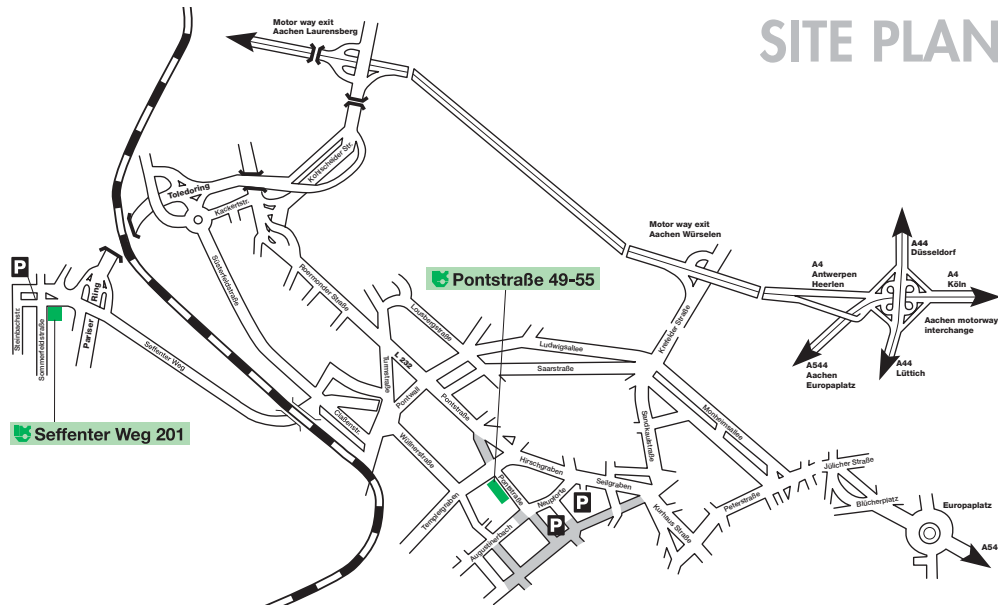
## RUBBER TECHNOLOGY

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## SITE PLAN

