



# Rubber meets Science

Processing of organic and silicone Rubber

25 - 26 June 2019



## IKV Conference on plastics processing

Aachen  
Novotel Aachen City

Conferences ▪ Seminars

# About this IKV Conference



## Chairmen

### Dr. Gerard Nijman – Organic Rubber Session

KraussMaffei Berstorff GmbH, Hannover

### Dipl.-Ing. Oliver Franssen – Silicone Session

Momentive Performance Materials GmbH, Leverkusen

When use is made of rubber and silicone, it is particularly important, for the function and quality of the products and for the efficiency of the processing, to have knowledge about the material production, the viscoelastic properties and the processing process. At the same time, this knowledge must be inter-related across these three aspects. Only in this way, can innovations be created that allow the constantly rising product requirements to be met.

The Rubber meets Science conference offers a balanced program on current trends and innovations and on future challenges in silicone and rubber technology. Acclaimed speakers from the rubber sector will report on economically interesting processes for the production of deman-

ding, top-quality silicone and elastomer components. They will also talk about projects aimed at developing high-performance parts made of elastomers and silicone.

Current research projects and results from science will supplement the presentations from industry. Direct dialogue between industry and research leads to new ideas and points of contact for future joint projects and research initiatives.

You can take advantage of this exchange of experience and extend your network at the same time. The tour of the Institute and the Conference dinner will also provide an opportunity to make further useful contacts.

## Programme ■ 25 - 26 June 2019

■ Tuesday, 25 June 2019, 9.00 a.m - 10.00 p.m, including dinner

**Rubber technology – strategic directions of research at the IKV,** Prof. Dr.-Ing. Andreas Limper, HF Mixing Group

**Special interest magazines – knowledge provider and promoter for the industry,** Indira Gupta, M.A., Dr. Gupta Verlags GmbH

**Challenges in the rubber industry – new requirements for materials and components due to new mobility,**  
Dr.-Ing. Maximilian Schöngart, ContiTech MGW GmbH

**The ADAMOS approach – how to address digitisation as a moving target,** Dr.-Ing. Felix Hackelöer, ADAMOS GmbH

**Morphology and mechanics of nano-dispersed rubber blends,** Prof. Dr. Ir. Martin van Duin, Arlanxeo Netherlands B.V.

### Organic Rubber Session: Future technology – 1.30 p.m.

#### Recent developments for elastomer seals in the driveline

Dr. Arthur Lanziner, Freudenberg Sealing Technologies GmbH & Co. KG

#### Thermoplastic elastomers in the changing automotive industry

Dr.-Ing. Thomas Köppl, Hexpol TPE

### Silicone Session: Future technology – 1.30 p.m.

#### Use of big data in the example of silicone injection moulding

Dipl. Wirt. Ing. Stefan Rönisch, Aptiv Services Deutschland GmbH

#### Implementing complex LSR moulding from a white piece of paper

Vanessa Frekers, B.Sc., Sigma Engineering GmbH

# Future technology ■ Materials ■ Processing ■ Simulation

## t.b.a.

Anthony Dossi, OR.P. STAMPI s.r.l.

## Fully automated production and the prerequisites for it

Kurt Manigatter, ELMET Elastomere Produktions- und Dienstleistungs-GmbH

## Organic Rubber Session: Materials – 3.45 p.m.

### VOC's in rubber chemicals and compounds

Dr. Hermann-Josef Weidenhaupt, Lanxess Deutschland GmbH

### New mobility concepts and rubber – refrigerant resistance as an example

Dr. Andreas Kaiser, Arlanxeo Deutschland

## Silicone Session: Materials – 3.45 p.m.

### LSR new product innovation – market and material trends

Dr. Patrick Beyer, Dow Silicones Deutschland GmbH

### Regulatory compliance with silicone elastomers – status check, new regulations, preparing the future

Dr. Beate Ganter, Momentive Performance Materials GmbH

## Laboratory tour: extrusion and rubber technology and Centre for Analysis and Testing of Plastics (KAP) – 5.00 p.m.

Conference dinner – 8.00 p.m.

## ■ Wednesday, 26 June 2019, 9.00 a.m. - 3.45 p.m.

## Determination of material parameters for process description and simulation, Dipl.-Ing. Thomas Rauschmann, TA Instruments

Elastomer injection moulding for different kind of materials (rubber, LSR, HCR), Leopold Praher, Engel Austria GmbH

## Organic Rubber Session: Processing – 11.15 a.m.

### Compounding – influence of process parameters on the processing and resulting rubber properties

Melanie Kostka, M.Sc., IKV - Institute for Plastics Processing

### Technological and design aspects of a new self-centring extrusion head for coolant hoses

Mike Weiterer, KraussMaffei Berstorff GmbH

### Vulcanisation in salt bath: a very old process that has become very modern

Jean Baptiste de Chamisso, MDC Engineering

## Silicone Session: Processing – 11.15 a.m.

### Silicone compounding from the perspective of a medium-sized company

Jochen Klein, Rado Gummi GmbH

### Model calibration for screw design of silicone rubber extruders

Michael Drach, M.Sc., IKV - Institute for Plastics Processing

### Intelligent equipment for next level silicone moulding

Dietmar Waizenauer, Nexus Elastomer Systems

## Organic Rubber Session: Simulation and material behaviour – 2.00 p.m.

### The rheology of rubber in the eyes of injection moulding simulation

Dipl.-Ing. Harold Kutschera, simcon Software GmbH

### Towards a digitalisation of the continuous vulcanisation process

Sebastian Kammer, M.Eng., IKV - Institute for Plastics Processing

### Are generally known material models sufficient to describe the quasi-static behaviour of TPE?

Christoph Zimmermann, M.Sc., IKV - Institute for Plastics Processing

## Silicone Session: Application – 2.00 p.m.

### Special requirements for silicone components in medical applications

Florian Lemke, M.Sc., Dräger Medical AG & Co. KG

### SiO shaping, the next revolution of silicone manufacturing

Anthony Pellafol, Sterne SAS

### Optimised surface pre-treatment of silicon-metal parts

Dipl.-Ing. (BA) Klaus Milde, R.E.T. GmbH

## Your benefit

- You meet experts from industry and research
- You learn about the latest news in materials and modelling
- You become familiar with new plant and process developments
- You experience research live in the IKV pilot plants

## Time for networking

- in the many breaks
- during the tour of the IKV technical centres
- at the get-together with evening dinner on the first day

### Organiser

IKV · Institute for Plastics Processing in Industrie and Craft at RWTH Aachen University  
Chair of plastics processing, Prof. Dr.-Ing. Christian Hopmann  
Postal address: Seffenter Weg, 201, 52074 Aachen, Germany

### Organisation

Heinz Dersch, MA, phone +49 241 80-93811, akademie@ikv.rwth-aachen.de

### Attendance fee

995 € for non-members of IKV Sponsors' Association, 795 for members

### Content of the conference

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### Event venue

Novotel Aachen City, Peterstraße 66, 52062 Aachen

### Get-together and dinner

8.00 p.m. Conference dinner at Restaurant "Elisenbrunnen", Friedrich-Wilhelm-Platz 14, 52064 Aachen

Detailed programme and further information on the IKV conference  
[www.ikv-aachen.de/fachtagung-rubber-meets-science](http://www.ikv-aachen.de/fachtagung-rubber-meets-science)



Save the date



30<sup>th</sup> International Colloquium  
Plastics Technology

11 - 12 March 2020, Aachen, Germany

Recruiting. Networking. Innovating.