**English Language Seminars**

**Raw Materials**

September 14–18, 2020

Deutsches Institut für Kautschuktechnologie e. V.
Hannover

www.dikautschuk.de

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**Organizer**
Deutsches Institut für Kautschuktechnologie e. V.
Prof. Dr. Ulrich Giese (Managing Director)
Eupener Str. 33, 30519 Hannover, Germany

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**Head of the seminar**
Prof. Dr. Ulrich Giese
Deutsches Institut für Kautschuktechnologie e. V.

**Participation Fee**
- Members of DIK: €1,800
- Nonmembers: €2,050
- Three or more employees from same nonmember: €1,930
The fee includes the conference proceedings, refreshment during the official coffee breaks, lunches and the social evening.

**Target Group**
Skilled workers, master craftsmen, technicians preferably with good practical experience in the area of Rubber Technology, chemists, physicists and engineers (career starters or career changers), business people with specialist basic knowledge (e.g. from the DIK advanced training course “Rubber Technology for Beginners”).

**Registration**
For your convenience, a course registration form is available at our website. The number of participants is limited, so it is advisable to register early. Registration deadline is two weeks before the start of the conference.
www.dikautschuk.de

**Cancellation**
Cancellations must be in writing. A fee of €100 is withheld for cancellation up to fifteen days prior to the beginning of the seminar. In the event of cancellation less than fifteen days prior to the beginning of the seminar, the full participation fee is due. It is, however, possible to name a substitute participant.

**Hotel Recommendations**
Accommodation is not included in the fee. Please book your room yourself. On our homepage you will find a link which will forward you to the hotel reservation system (HRS).

**Conference Venue**
Deutsches Institut für Kautschuktechnologie e. V.
Eupener Str. 33, 30519 Hannover
Raw Materials

The “performance” of elastomer compounds is determined not only by the manufacturing processes but also by the selection and quality of the raw materials. With comprehensive knowledge of the chemical structure, the physical properties and the structure-property relationships as well as on the interactive effects of mixture components, the targeted use of raw materials under technical and economic aspects in the Rubber technology is successful. In particular, the increasing demands placed on elastomers with regard to aging and temperature resistance, high dynamic loading capacity under extreme conditions as well as good processability require a sound knowledge of mechanistic principles.

A targeted “Compounding” is only possible with extensive knowledge of the efficiency of additives, such as fillers, plasticizers, antioxidant systems and crosslinking chemicals.

Contents

- **Rubber polymers**
  Synthesis, properties and applications
  (NR, BR, SBR, EPDM, NBR, HNBR, EVA, ECO, ACM, FKM, Q)

- **Fillers**
  Manufacture, characterization, properties (furnace carbon blacks, special carbon blacks, silica, silanes, “new” fillers)

- **Plasticizers**
  Principle of softening, application, types of plasticizer

- **Additives**
  Antioxidants and processing aids

- **Thermoplastic elastomers**
  Manufacture, properties, application
  (block copolymers, thermoplastic vulcanizates)

- **Crosslinking chemicals**
  Sulphur and peroxide systems

- **Compounding**
  Goals, specifications, optimization, sources of error

- **Bonding/Bonding systems**
  Basic principles, bonding to metal

The lectures are accompanied by practical demonstrations.
The organizer reserves the right to make changes to the program.