3rd EDITION

EUROPE Rubber Industry FORUM - 2017

All about rubber compounding

TECHNOBIZ * EVENT

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9-11 MAY 2017, VIENNA, AUSTRIA

VENUE **Gartenhotel Altmannsdorf,** 1120 Vienna, Austria

All about rubber compounding

Event Schedule

- 9 May 2017: Training Courses
- 10-11 May 2017: Conference Program
- 10 May 2017: Europe Rubber Technologists Dinner 2017

9 May 2017 : Training Courses

09.00-17.00	**Rubber Reinforcement with Carbon Black & Silica** *Prof. Robert Schuster, Germany*
09.00-17.00	**Rubber Compounding for Non-Technologists** *Dr. Hans-Joachim Graf*

10-11 May 2017: Conference – All about Rubber Compounding

10 May 2017

09.00-09.10	**Welcome Remarks & Introduction** *Dr. Thomas Früh*
09.10-09.40	**Surgeon Gloves with Innovative UV-Technology – A New Dimension in Skin Care and Handling Comfort** *Dr. Armin Holzner*
09.40-10.10	**Compounding performance latex products for European regulation** *Gunther Lottmann*
10.10-10.40	**What is Essential for a Rubber Compounding Factory?** *Dr. Andreas Bischoff*
10.40-11.00	***COFFEE/TEA BREAK***
11.00-11.30	**What Basic Knowledge is Required in a Tire Compounding Factory?** *Thomas Hanel*
11.30-12.00	**Rheological and Thermodynamical Characterization of Rubber Compounds - How to Provide Reliable Data** *Prof. Dr. Walter Friesenbichler*
12.00-12.30	**Protection of Diene-Containing Elastomers against Cracks by Ozone** *Jürgen Trimbach*
12.30-13.30	***LUNCH***
13.30-14.00	**Modified SSBR and it Properties** *Dr. Sibyll Ilisch*
14.00-14.30	**Improved Properties of Model Tire Tread Compounds based on New Functionalized SSBR** *Natalia Meissner*
14.30-15.00	***COFFEE/TEA BREAK***
15.00-15.30	**EPDM by Design** *Dr. Varun Thakur*
15.30-16.00	**New approach in sponge formulations with very high molecular weight EPDM** *Eric Jourdain*
16.00-16.30	**Recent Developments on EPDM compounds used in Automotive Sealing Systems – Surface Properties and Light Weight** *Dr. Dominik Schramm*
16.30-17.00	**Formulation of EPDM: Important Factors Influencing Their Properties Caused by Changes of the Base Polymers** *Dr. Mathias Soddemann*
17.30-17.00	**SLIP-COAT Waterbased Coatings for Automotive Window and Door Seals** *David Bareich*

11 May 2017

08.45-09.00	**DAY 1 RECAP**
09.00-09.10	**"Europe Rubber Technologist 2017" Award Presentation**
09.10-09.40	**Experimental Results on Morphological and Engineering Consequences of Good and Bad Mixing** *Dr. Dariusz Bielinski*
09.40-10.10	**Review of Mixing and it's Effect on Polymer Performance** *Dr. Hans-Joachim Graf*
10.10-10.40	**Rubber Injection Molding and its Specific Peculiarity** *Leopold Praher*
10.40-11.00	***COFFEE/TEA BREAK***
11.00-11.30	**How to Design NBR-Rubber Compounds** *Robert Stäber*
11.30-12.00	**Compounding Vamac AEM for Various Applications** *Klaus Kammerer*
12.00-12.30	**PANEL DISCUSSION**
12.30-13.30	***LUNCH***
13.30-14.00	**Improving Low Temperature Properties and Curing Behavior of Specialty Rubbers by Ionic Liquids** *Prof. Robert Schuster*
14.00-14.30	**Utilizing Neuburg Siliceous Earth to improve economical and physical properties – various compounding strategies,** *Nicole Holzmayr*
14.30-15.00	**Compounding for a Constant Crosslinking Density** *Dr. Hans-Joachim Graf*
15.00-15.30	***COFFEE/TEA BREAK***
15.30-16.30	**PANEL DISCUSSION**

Training Courses

Rubber Reinforcement with Carbon Black & Silica

The training is designed to provide an overview on filler reinforcement by Carbon Black and Silica/Silane in tire formulations and technical rubber goods. The advantages and disadvantages of both technologies will be presented. With the implementation of silica in the tire technology (green tire) the tread properties have been successfully improved with respect to rolling resistance and wet grip. This leads directly to significant reductions of fuel consumption and safe driving at higher speed. Details about silanization with different silanes (mono- and difunctional) under different mixing conditions and temperature regime, the degree of silanization, the impact on silica dispersion and dynamic mechanical as well as ultimate properties will be presented. However, recent developments demonstrate that optimal dispersion of CB leads to similar performance and in addition a very substantial improvement of abrasion resistance. The key-parameter for this success is a properly designed filler surface activity and filler – polymer interaction. Key parameters to improve the processing parameters of rubber compounds as well as the final material properties are presented. The factors that lead to the required nano-dispersion of the reinforcing fillers will be discussed for the two different filler systems. In addition the problem of filler transfer and phase distribution of CB and polar precipitated silica in non-polar rubber blends (BR/SBR and BR/SBR/NR) will be an important part of the Seminar. This course outline includes: Manufacturing of CB and Silica, Characterization of Filler Particles, Surface Specific Area and Structure, Surface Activity, Incorporation and Dispersion of CB and Silica, Flocculation of filled Compounds, Methods to measure Dispersion, Technical Mixing Procedures, Special Features of Silica/Silane Technology, Properties of uncured filled Compounds, Properties of cured filled Compounds, Fracture Mechanical Features, Functional Polymers for better Dispersion, New Developments

Rubber Compounding for Non-Technologists

This training program is aimed for non-technical personnel in the rubber industries. This is suitable for sales executives, purchasing managers, human resource managers as well as general managers, who are just entering the rubber industry, etc., and who are mainly non-technical people. Understanding each other is a precondition for successful cooperation and team working. The nature of rubber and its processes requires multidisciplinary thinking and cooperation in cross-functional teams. It is important to understand the technical terms and the way, technician think and act. The course is focusing on basics of rubber compounding and processing in easier terms, which covers following topics: Structure of Rubber Compounding Industry, Rubber Raw Materials – Natural Rubber, Synthetic Rubber & Blends, Rubber Chemicals – Types and Purpose, The Rubber Compounding Unit, Injection Molding, Extrusion and Miscellaneous Processes, Testing of Rubber and its Meaning, Process Approval Procedure and Quality Aspects, Challenges in Rubber Manufacturing with Industry 4.0

Registration Fee / Person

Codes	Event Name	Fee/Person
ER-1	Training : Rubber Reinforcement with Carbon Black & Silica	750 €
ER-2	Training : Rubber Technology for Non-Technologists	750 €
ER-3	Conference: All about Rubber Compounding	950 €
ER-4	Europe Rubber Technologists Dinner 2017	75 €
ER-5	Complete Forum (1-training course+conference+dinner)	1,600 €

Hotel Accommodation Assistance

Julia Brokx, Banquet & Conference Coordinator,
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