

5TH EDITION

TECHNOBIZ EVENT

USA RUBBER TRAINING WEEK 2018

27-31 August 2018, Novi, Michigan

Venue: Four Points by Sheraton Detroit Novi

Rubber Compounding, Formulation Optimization & Case Studies

27-28 August 2018

Trainer : Dr. Hans-Joachim Graf
REGISTRATION FEE: 1,200 US\$ / Person
Includes: **Graf Compounder Software**

Rubber Injection Molding

29-30 August 2018

Trainer: Van Walworth
REGISTRATION FEE: 950 US\$ / Person
Includes: **Rubber Molding Troubleshooting
Pocket Book & Rubber Molding Principles
Book**

Rubber Reinforcement with Carbon Black & Silica

31 August 2018

Trainer : Prof. Robert Schuster
REGISTRATION FEE: 750 US\$ / Person

Rubber Chemicals Selection

29 August 2018

Trainer : Dr. Irene Yurovska
REGISTRATION FEE: 650 US\$ / Person

Rubber Vulcanization : Science and Practice

30 August 2018

Trainer: Prof. Robert Schuster
REGISTRATION FEE: 750 US\$ / Person



Agenda: 08.30-16.30 hrs

Organizer

TECHNOBIZ

Media Partners

**Rubber & Tire
DIGEST** A TECHNOBIZ & RUBBERWORLD PUBLICATION

RubberWorld

PROGRAM CONTENTS

Rubber Compounding, Formulation Optimization & Case Studies

- Natural & Synthetic Rubber
- Rubber Processing Chemicals
- Formula Design Considerations
- Rubber Mixing Equipment
- Oil/Filler and Its Effect on Performance
- Rubber Vulcanization & Crosslinking
- Ingredient Property Relations
- Troubleshooting of Compounding Problems
- Recipe Development Methods
- Design of Experiments Principles
- Compound Formulation Case Studies
- Compound to Performance and Cost
- Cost Reduction in Compounding

Rubber Chemicals Selection

- Elastomer Selection
- Fillers : Carbon Black & Non-Black Fillers
- Curing Systems
- Anti-degradants
- Plasticizers and processing aids
- Cost considerations

Rubber Injection Molding

- Rubber Flow Behavior
- Mold Design Techniques & Best Practices
- Injection Runner Layout Design
- Runner Cross Section Design Techniques
- Balanced Cavity Filling Techniques
- Pulse Filling Techniques
- Mold Cleaning Practices & Options
- Cavity Inserts Design Techniques
- Floating Cavity Design Techniques
- Sprue & Gate Designs
- Flash Management & Clamping Pressure
- Flash Management & Registration/Alignment
- Tear-Trim Designs for Flash Removal
- Troubleshooting Injection Rubber Molding

Rubber Vulcanization : Science and Practice

- Process of Curing
- Reactivity of Rubbers & Curing Systems
- Curing Systems
- State of Cure
- Cure Process (Kinetics)
- Sulfur Curing (Accelerators, Activators, Retarders, Synergistic Effects)
- Influences on Reversion (Curing System, Rubber Matrix, Filler, Processing)
- Peroxide Cure
- Metal Oxide, Resins,
- Cure Packages
- Influence on Standard Physical Properties
- Influence on Ultimate Properties
- Life Time
- New Curing Systems

Rubber Reinforcement with Carbon Black & Silica

- Manufacturing of Carbon Black (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

TRAINERS

Dr. Hans-Joachim Graf

- 35+ years Experience in Rubber Processing
- Area of Expertise: Compounding, Injection Molding, Extrusion & TPE
- Awarded with Erich-Konrad Medal by German Rubber Society
- Work Experience : DESMA, RheinChemie, CooperStandard, WOCO etc
- Ph.D in Polymer Chemistry & Holds 15 Patents

Van Walworth

- 30+ years Experience in Rubber Molding & Mold Design
- Area of Expertise: Rubber Molding, Product Design & Development
- Author of „Rubber Molding Principles“ Book, Rubber Molding Troubleshooting Charts, Pocket Books on Molding
- Holds 30+ Patents

Prof. Robert Schuster

- Former Director of Germany Rubber Institute
- Specialization: Mixing, Processing, Vulcanization, Rubber -filler interaction, nanocomposites, recycling etc.
- 35+ years in Rubber Technology Research & Consulting
- Received "Carl Harries" Medal from the German Rubber Society (DKG)
- Received the "Melvin Mooney" Award from the ACS Rubber Division

Dr. Irene Yurovska

- 40 Yrs Experience in Tires and Industrial Rubber Products Manufacturing
- Former employers include Teknor Apex, Acushnet/Precix, Cabot Corporation and Addivant/Uniroyal
- Hold 6 Patents

How to Register?

Please download registration form at www.rubber-industry.org and send the filled form to technobiz.usa@gmail.com.

Venue

Four Points by Sheraton Detroit Novi
Lakya Shackelford,
27000 South Karevich Drive
Novi, MI, 48377
Tel: 2483 4850 00639

EarlyBird / Group Registration:

- *Early Bird Registration* : 10% discount for the registrations before 30 June 2018 & 5% Discount for the registrations before 31 July 2018
- *Group Registration*: 10% discount for a group of 3 or more delegates for the same program from the same organization.

Contact Address

Czuba Enterprises, Inc.
1105 E. Adams St., Suite 1034
Lombard, IL 60148 USA
Tel: +1 630.627.9242
Mobile: +1 630.632.3560
Email: LCzuba@czubaenterprises.com

TechnoBiz Communications Co., Ltd.
2521/27, Lardprao Road, Khlongchaokhunsingha
Wangthonglang, Bangkok 10310 Thailand
Tel: +66-2-933 0077 Fax: +66-2-955 9971
Email: peram@technobiz-asia.com
Web: www.rubber-industry.org
Web: www.technobiz-group.com

TechnoBiz Europe (HJG Consulting)
Josef Leistenschneider Strasse 27
63628 Bad Soden – Salmünster GERMANY
Tel: +49 (0)151 2000 6394 FAX: +49 (0)3222 152 0721
E-Mail: graf.hans-joachim@t-online.de /
technobiz.europe@gmail.com