## Specialized Training Seminars for Engineers, Scientists and Managers

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<thead>
<tr>
<th>Date</th>
<th>Seminar Title</th>
<th>Code</th>
<th>Instructor</th>
<th>Registration Fee</th>
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<tr>
<td>14-15 Aug 17</td>
<td>Advanced Rubber Technology</td>
<td>UR-1</td>
<td>Joe Walker</td>
<td>1,200 US$</td>
</tr>
<tr>
<td>14 Aug 17</td>
<td>Lean and Six-Sigma for Rubber Processing Improvement</td>
<td>UR-2</td>
<td>Drew M. Algase</td>
<td>750 US$</td>
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<tr>
<td>14 Aug 17</td>
<td>Rubber Technology for People Who Are Not Technologist</td>
<td>UR-3</td>
<td>Terry Chapin</td>
<td>750 US$</td>
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<tr>
<td>15 Aug 17</td>
<td>Introduction to Value Analysis /Value Engineering (VA/VE)</td>
<td>UR-4</td>
<td>Drew M. Algase</td>
<td>750 US$</td>
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<tr>
<td>15 Aug 17</td>
<td>Behavior of Rubber &amp; Troubleshooting of Rubber Processes</td>
<td>UR-5</td>
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<td>16 Aug 17</td>
<td>Introduction to Polymers and Elastomer</td>
<td>UR-6</td>
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<td>16 Aug 17</td>
<td>Cryogenic Deflashing of Rubber Parts</td>
<td>UR-7</td>
<td>Don Madda</td>
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<td>16 Aug 17</td>
<td>Symbiotic Relationship of Flash &amp; Pressure &amp; Registration</td>
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<td>Van Walworth &amp; Terry Chapin</td>
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<td>17 Aug 17</td>
<td>Rubber Mixing and Molding</td>
<td>UR-9</td>
<td>Joe Walker</td>
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<td>17 Aug 17</td>
<td>Practical Application of Surface Prep &amp; Coating for Bonding</td>
<td>UR-10</td>
<td>Jeremy Belshaw</td>
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<td>17 Aug 17</td>
<td>Flashless &amp; Wasteless Rubber Molding Process Principles</td>
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Rubber Industry Department @ TechnoBiz

Introduction to Value Analysis /Value Engineering (VA/VE) (UR-4)

This 1-day session is intended to provide participants with an awareness of the value methodology (VA/VE/VM). Participants will be prepared to participate in value studies, recognize opportunities for its use, and will appreciate how VA/VE should be integrated into product development and continuous improvement programs. Topics covered: (1) Overview of the value methodology; its history, philosophy, and standards (SAVE International, ASTM, European EGB) (2) Application of VA/VE to enable product development (3) Exercises demonstrating the tools and techniques of the value methodology (4) Examples of value studies from the rubber industry.

Introduction to Lean and Six-Sigma for Improving Processes (UR-2)

This 1-day session is intended to raise awareness of project sponsors, managers, and practitioners of Lean and 6-Sigma as complementary methods to improve value. We will introduce the concepts of Lean and Six- Sigma and describe their philosophy and techniques to improve value. The core idea of Lean is to maximize customer value while minimizing waste by identifying and continuously eliminating sources of waste. 6-Sigma is a proven methodology to improve the value of a process or product by using engineering and statistical methods to identify sources of variation and reduce process variation. This seminar will demonstrate when and how to use Lean and 6-Sigma techniques to improve value.

Understanding Rubber Technology for People Who Are Not Rubber Technologist (UR-3)

This seminar is perfect for people new to the rubber industry and / or for people with jobs in Engineering, Sales, Administration, Human Resources and/or any other non-technical position associated with the rubber industry. Attendees will receive an uncomplicated, easy to understand introduction to the terminology used in the rubber industry. This basic introduction to the rubber industry will help attendees gain an understanding of the basics of the technology and the language used in the rubber industry and the business of manufacturing molded rubber goods.

Behavior of Rubber & Troubleshooting of Rubber Processes (UR-8)

This seminar discusses how rubber behaves as it flows in and through rubber molds and cavities during the processing of rubber in molding systems such as compression, transfer, and injection. A thorough understanding of how rubber flows and behaves in molding systems is a vital tool useful in assisting process practitioners when troubleshooting molding problems. Many examples of rubber molding problems are presented and used as workshop examples by the instructors as they draw upon their personal extensive experience discussing troubleshooting solutions.

Advanced Rubber Technology (UR-1)

The objective of this two day series of classes is to provide an in depth look at the technology used in the design and creation of a rubber compound. This program is not intended to instruct on how to create a compound but to give the attendee the background to assist them in making the choices during the creation, manufacturing and fabrication of the compound. The program will take a sweeping look at all aspects of rubber compounding including polymer science, fillers, mixing, testing, molding and adhesive bonding. It is intended for those engineers and chemists who are charged with design and development of rubber compounds; securing rubber compound supply; manufacturing the rubber compound and fabricating the molded rubber article. This program will examine in detail the engineering characteristics of rubber, types of rubber, creating the compound (including filler and cure system technology), mixing the rubber compound, testing the compound, molding and bonding.

Introduction to Polymers and Elastomer (UR-6)

This course is designed to give the participant an introduction to engineering polymers. It will consist of an introduction to polymer science discussing the different types of common thermoplastic polymers and will lead into the creation of thermoplastic rubber and finally into thermoset rubber. During this one day overview, the participant will learn about the different types of popular polymers in use today and their characteristics along with those polymers specific to creating elastomeric compositions and what makes each polymer system unique. Creating of rubber compounds, mixing, testing and molding will also be discussed. This course is not intended to provide in depth discussions on how to formulate (detailed treatment of these subjects is provided in the course Advanced Rubber Technology) but to provide an overview on the essential technologies behind the material selection, production and fabrication technologies being used in the rubber industry today. The program is designed to assist those individuals involved with the selection, procurement, marketing and selling of rubber goods.

Cryogenic Deflashing of Rubber Parts (UR-7)

Attendees of this seminar will have a rare opportunity to glean from one of the world’s foremost experts in cryogenic nitrogen deflashing of rubber parts. Don is considered and widely respected as the go-to guy for nitrogen cryogenic questions, solutions, and problem solving. Whether your company currently has nitrogen cryogenic capabilities or if you just want to learn more about the process as a consideration for installing cryogenic capabilities in your facility, this is the seminar to attend. The outline includes (1) Cryogenic
to participate in value studies, recognize opportunities methodology (VA/VE/VM). Participants will be prepared participants with an awareness of the value business of manufacturing molded rubber goods. gain an understanding of the basics of the technology introduction to the rubber industry will help attendees the rubber industry and / or for people with jobs in (UR-3)

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Introduction to Lean and Six-Sigma for testing the compound, molding and bonding.

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Joseph Walker

is the owner of Elastomer Technologies, an organization dedicated to education in the field of elastomers and elastomer processing. He is also the global director of Advanced Materials Development for Freudenberg-Sealing Technologies and Freudenberg-NOK Sealing Technologies where he is globally responsible for overseeing all advanced materials development for the company. Prior to joining Freudenberg, Walker served as silicone rubber business team leader for Wacker Silicones Corp. There, he was responsible for research, development, and sales and marketing. Previously, he was an engineering fellow for Alliant TechSystems (formally Honeywell Defense and Marine Systems), where he focused on material design, processing and application for various U.S. Department of Defense programs. Walker also held positions at Stauff Chemical, Phillips Petroleum and Firestone Tire & Rubber Co. He has lectured and conducted trainings at the University of St. Thomas and the University of Wisconsin, as well as at various industry workshops and events. He was the 2012 chairman of the American Chemical Society, Rubber Division, a member of the Rubber Industry Advisory Board for Ferris State University, and is past-chair and life board member of the Detroit Rubber Group. Additionally, he is a board member of the Association of Rubber Products Manufacturers (formerly Rubber Manufacturers Association, General Products Group), a member of Society of Automotive Engineers, Society of Plastics Engineers, Original Equipment Suppliers Association, Automotive Industry Action Group, and the Americas Tech Team of the American Chemistry Council. A graduate of Lawrence Technological University, he holds 23 patents in the fields of materials applications, process and compositional chemistries. He has authored and edited various chapters in text and industry publications.

Instructor Profiles

Drew M. Algase is a Value Engineering, 6-Sigma, and Lean Systems specialist. Drew is a director of the Value Management Institute (VMI) of Michigan; an organization specializing in training and facilitation of value improving practices. Drew recently retired from Freudenberg-NOK Sealing Technologies as a Six-Sigma and Lean Systems Master Black Belt. He directed the corporate 6-Sigma (DMAIC & DFSS) and Value Engineering processes, which complement Freudenberg-NOK’s global lean systems program called GROWTH® (Get Rid of Waste Through Team Harmony). Drew has over thirty-five years of engineering and manufacturing management experience with automotive, food processing and consulting industries. Drew is a graduate of the University of Toledo with BSME/IE and MBA degrees. He is a Certified Value Specialist® (CVS®) through SAVE International and a life member of the Institute of Industrial Engineers (IIIE). His active service to the VE/VA profession includes serving SAVE International as the Vice President, Global Affairs, past VP of Manufacturing, and past Chairman of the SAVE Certification Board. Drew was elected to the SAVE College of Fellows and is also a director and VP of Operations for the Miles Value Foundation. He is a frequent speaker/presenter at SAVE International and the PEX (Process Excellence) network conferences.

Practical Application of Surface Prep & Coating for Rubber Bonding (UR-10)

This seminar is a practitioner’s guide for the principles of custom coating and surface finishing primarily focusing on over molded inserts for the rubber industry. Attendees will be exposed to a wealth of knowledge from an instructor who owns and operates one of the very few independent third party facilities dedicated to surface preparation of over molded inserts and the application of bonding adhesives. The seminar covers: (1) Coating process selection (2) Application process selection (3) Practical equipment setup and selection (4) Process monitoring and testing (5) Safety, handling, and, PPE (6) Shipping, storage, and logistics (7) Bond failure analysis (8) Troubleshooting surface prep processes (9) Troubleshooting coating application processes.

Flashless & Wasteless Rubber Molding Process Principles (UR-11)

This technical training seminar covers the principles of flashless and wasteless rubber molding. The techniques, mold designs, and general knowledge presented will assist practitioners in their efforts to integrate and/or improve wasteless and / or flashless rubber molding into their operations. The course materials are based upon the instructor’s extensive personal knowledge and experience. This seminar covers: (1) Principles of Flashless Molding (2) Venting Techniques (3) Floating Cavity Sets (4) Principles of Wastless Molding (5) Cold Transfer Molding (6) Cold Runner Blocks (7) Cold Nozzle Drop Use & Design (8) Valve Gate Use and Design.

Rubber Mixing and Molding (UR-9)

This one day course is designed for shop floor personnel involved in the manufacturing and fabrication of rubber compounds and molded rubber goods. This program is taken from that of the advanced course, Advance Rubber Technology. The program is not intended examine the in-depth details associated with creating the rubber compound but focuses on the details of mixing the rubber compound and testing the various attributes of the mix and subsequently setting up the rubber molding process based on state-of-cure science. The major goal of the program is to provide insight into identifying variables in the rubber manufacturing chain that result in variation and scrap.

USA Rubber Processing Education Week 2017

USA Rubber Processing Education Week 2017
Van Walworth is a product design and development specialist. Van has a BS degree from the University of Alabama in mechanical engineering drafting and design, and has become a well-known “hands on practitioner”. Most of his primary application skills are focused on products manufactured from materials related to the rubber, plastic, & pipe industries. In many circles, he is known as “The Ideaguy” or as “The Rubber Whisperer”. Van is an internationally recognized technical educator for in-plant seminars, and university level continuing professional education programs. He is a published author of many technical papers as well as the author of the book “Rubber Molding Principles” first published in 2013 and the creator of a series of Troubleshooting Charts for processing rubber, all published and distributed by TechnoBiz. His professional career spans over three decades holding executive management positions with industry leading companies practicing product R&D, mold design, tooling & equipment design, process establishment & improvement, reverse engineering, troubleshooting, project management, and spontaneous creativity. His creative approach and understanding of the patent process has been instrumental in the preparation, prosecution, and granting of over thirty patents, with many more currently pending. Van is President of TechnoBiz-USA, Inc., established in Tennessee, USA as a partnership joint venture with the TechnoBiz Group which is based in Bangkok, Thailand.

Terry L. Chapin received his B.S. from Youngstown State University in Youngstown, Ohio in June 1980. He majored in Mechanical Engineering and minored in Math and Civil Engineering. He is presently Rubber Technologist/owner at Elastomeister after he retired from Delphi after being employed there for thirty-three years holding positions as a Senior Material Engineer for elastomers, Senior Rubber Technical and Cost Leader and as a Tool Engineer for rubber and plastic molds. Terry has been involved in the rubber industry for over 30 years working with rubber companies all over the world. He has held previous engineering positions at Paxson Machine Company, EMCO Wheaton and Commercial Shearing. He holds two US patents. Terry has been an active technical speaker for university level continuing education instruction, rubber conferences and technical in-plant venues for over twenty-five years.

Jeremy Belshaw established himself seven years ago as the founder and owner of JB Enterprises Parts Detailing, LLC in Elyria, Ohio. Jeremy is an expert practitioner with many years of hands on experience with the practical aspects of surface preparation and coating applications for over molding with rubber. Jeremy’s expertise includes many different types of the surface preparation techniques, methods, and types of equipment. In addition, he has a vast working knowledge of the types of equipment best used to apply the many different types of coatings for over molding with rubber. JB Enterprises has equipment and expertise for custom coating of heat activated adhesives, bond failure analysis, adhesive application and molding process problem solving, plating services, sandblasting, surface preparation services, assembly, and adhesion inspection services. Prior to launching full time with JB Enterprises, Jeremy was a Sales Engineer for Custom Rubber Corporation for 16-years.

Donald Madda is the owner and President of Cryogenic Consulting, LLC based in Chardon, Ohio. Don has recently retired as Program Manager for Industrial Cryogenics with the Engineering Solutions Group of Airgas Merchant Gases, based in Cleveland, Ohio. Don has 36 years’ experience in the industrial gas industry, and is one of the most widely recognized experts in cryogenic deflashing. In addition, Don has extensive knowledge of cryogenic deflashing equipment and is an expert related to the capabilities and processing parameters associated with liquid nitrogen, especially in applications with molded rubber products. His expertise is wide-ranging when it comes to how the rubber flash responds when exposed to the cryogenic deflashing process. Don also has over 36 years of dedicated research and experience with cryogenic failure analysis. He is co-author for a technical paper presenting a novel technique and analytical method to determine whether a defective feature to the rubber product of the cryogenic process as opposed to merely exposing a defect which was created during the molding process of the part.

Seminar Schedule:
9:00am-5:00pm

Registration Online:
https://technobiz.rubber.guru/

Remarks
1. Early Bird Discounts: 10% Fee discount for registering before July-1, 2017
2. ARPM Members Discount: Please contact ARPM for the discount code (20%)
3. Discounts cannot be combined.
4. Registration fee includes class handouts, lunch and snack breaks.

Venue & Accommodation

- Crowne Plaza Cleveland Airport, 7230 Engle Road, Middleburg Heights, OH 44130, Tel: (440) 234-4040
- Hotel provides shuttle service to & from Cleveland Hopkins Airport.
- Hotel event rate for rooms are $109 per night (plus applicable state and local taxes currently 16.50%)
- Hotel offers complimentary parking.
- Accommodation Booking Online: https://tinyurl.com/mb94zey

Cancellation Policy: 100% credit of fees paid for a future TechnoBiz-USA event, 50% refund if cancelled 2-months prior to event, 25% refund if cancelled 1-month prior to event. 0% refund if canceled less than 1-month prior to event. Substitution of one person for another is permitted by notifying TechnoBiz-USA prior to event.

To register, please contact
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