



## **FINAL SPEAKER PRESENTATIONS**

**The following presentations are available in the 2010 Fall Convention Proceedings package.**

To purchase, contact Malinda Armstrong at [Malinda.Armstrong@ascouncil.org](mailto:Malinda.Armstrong@ascouncil.org) or (301) 986-9700 ext. 106.

**Monday, October 4, 2010**

### **Educational Track: Business Development & Market Trends**

#### **Olefins**

##### ***William Lemos***

This presentation examines the factors driving ethylene and propylene markets, including the fallout from long-term changes in feedstock trends. It also looks at the impact of the volatility on derivative markets, using proprietary ICIS pricing data.

#### **Market Update: Adhesives & Sealants in North America/Asia Pacific 2010-2013**

##### ***Dave Nick***

This presentation provides a preview of the new North American Market Report and includes comments on the global industry. The market has been adjusting to the “new” recession/post recession economy both in the U.S. and overseas. Subtle shifts, major changes in product demand and geographic markets are explored. Also highlighted is market segment growth and decline.

### **Educational Track: Technical & Government Regulations**

#### **Fastener-free Low Slope Roofing Systems**

##### ***Dr. Bas Baskaran***

An Adhesive Applied Roofing System uses no fasteners for attachment of its components, which can offer the advantages of reduction in moisture migration and thermal bridging. This presentation explores the advantages of an adhesive applied system and presents data for wind uplift resistance.

## **Vinyl-based Polymer Compositions for Use in Caulks and Sealants**

**Jeff Coulson**

Explore the use of water-based vinyl acetate polymer compositions in detail as an alternative to other chemistries and as a value-added, cost effective solution in caulk and sealant applications. This presentation reviews the breadth of vinyl-based chemistries and other functional derivatives designed to meet the broad spectrum of caulks and sealants end use specifications.

## **Improving the Performance Properties of Hot-melt Formulations**

**Dr. Mike Eason**

This session will explore the alteration of the physical properties of thermoplastics used in hot-melt adhesives, including EVA and SBC, and provide a compelling demonstration of improvement to thermal and tensile properties.

## **Educational Track: Sustainability & Green Technologies**

### **Silicone Materials for Photovoltaic Module Assembly**

**Barry Ketola**

Internal evaluations at Dow Corning and with select external partners have shown that highly efficient solar cells using silicones as the encapsulant can be assembled with very good reliability. This presentation focuses on the key properties of silicones both initially and after accelerated aging. Performance measurements are also addressed.

### **Next Generation Formed-in-Place Gasket Sealant for Automotive Powertrain Applications**

**C.S. Lin and Mark Neuenschwander**

In response to OEM needs and industry trends within the powertrain gasketing segment, a next generation FIPG liquid sealant, based on polyacrylate (ACM) rubber, has been successfully introduced and proven. The presentation compares this new technology to FIPG liquid sealants used today for vehicle powertrain gasketing applications.

### **The Truth About Being Green & Sustainable - A Market Perspective**

**Dr. Adam Malofsky**

This presentation focuses on the profile of what the market considers a truly sustainable and green materials science winner to be and how to apply those principles to what adhesives and sealants winners will look like.

## **Educational Track: Business Development & Market Trends**

### **The Lean Journey: An Overview of Six Sigma, Lean Management and Overcoming Cultural and Technical Constraints**

**Richard Wiltse**

This presentation is a high level overview of the Lean Journey at Tremco Mameco, starting with the initial Value Stream Mapping to then overcoming various technical and cultural constraints with Lean, Six Sigma, Lean Management and Shop Floor contribution. The results: a 27% increase in productivity.

## **Benchmarking to Achieve Best-in-Class Performance**

### ***Doug Bohn***

This presentation provides an overview of the benchmarking process, including real examples of how companies have dramatically improved their operational performance through participating in such benchmarking studies.

## **Opportunities Trends & Drivers in the Medical Adhesives Market**

### ***Joseph Luizzi***

Rapidly growing emerging markets, consolidations and mergers, an aging population, and increasing regulation will provide challenges to the medical adhesives market, but also present economic reward to those who understand the changes and the role their companies can play.

## **Educational Track: Technical & Government Regulations**

## **California Chemical Reform: Safer Consumer Product Alternatives**

### ***Dr. Patricia Beattie***

This proposed California “Safer Consumer Product Alternatives” regulation, which is projected to be enacted by 2011, affects all consumer products. This presentation features a summary of the regulation and information on the needs of downstream users of chemicals that end up in finished goods and consumer products.

## **TSCA Reform**

### ***Mark Duvall***

Legislation to overhaul the Toxic Substances Control Act (TSCA) has been introduced in both Houses of Congress that, if passed, would have big impacts on industry. This session identifies: 1) some of the problems in the current TSCA that legislation is aiming to fix; 2) key provisions of the bills introduced this year; 3) major implications of those bills for the adhesive and sealant industry; and 4) next steps in the legislative process.

## **REACH: What Management Needs to Know**

### ***Jeff Margulies***

This presentation will provide an overview and update on REACH, the EU’s new chemical regulation. The regulation fundamentally changes how chemicals and products are sold in the EU—requiring every manufacturer and importer to register each chemical, even many chemicals included in products that are sold or used in the EU—and poses unique issues for adhesives.

## **Globally Harmonized System: Are you ready for the coming changes?**

### ***Caroline Miller***

This session will present a detailed look at Global Harmonized System (GHS), including new categories and terminology of physical, health and environmental hazards; requirements for safety data sheets and labels; and an update on GHS implementation around world, including specific implementations.

## **Educational Track: Sustainability & Green Technologies**

### **Protective Layers in PV Modules**

***Dr. Monica Tisack***

This presentation includes information about the importance of material choices for long-life photovoltaic modules and describes the various DuPont materials that are used in module protection.

### **Bark Bio-refinery: Environmentally-friendly, Bark-waste Derived PF Adhesives and PU Foams**

***Dr. Ning Yan***

The University of Toronto has assembled a large multidisciplinary public and private research team focused on conversion of bark to these environmentally-friendly chemicals and products using solvent liquefaction methods. Current results on bark conversion and performance characterization of barked derived PF adhesives and PU foams are presented.

### **Adhesives and Sealants for the Solar Energy Industry**

***Dave Nick***

The presentation covers typical adhesive and sealant products in solar-generated electric power, a “Who’s Who” in the industry, and the fabrication needs for primarily photovoltaic panels.

**Tuesday, October 5, 2010**

## **Educational Track: Business Development & Market Trends**

### **Packaging Trends Across Industry**

***Ben Miyares, Packaging Management Institute***

Adhesives are an integral part of packaging. They hold elements together, prevent tampering, and combine disparate materials as fresh challenges to be green, economical, safe and simple. This presentation explores some of packaging’s new directions.

### **Global Ethylene Update**

***Chuck Carr***

Learn about how the increasing globalization of the ethylene market is affecting the industry as well as the impact of these significant influences.

### **US Light Vehicle Outlook –Automotive Industry Drivers - Sales & Production**

***George Magliano***

Review the latest outlook from IHS on the economy and auto industry. The latest forecast for light vehicle sales and production is analyzed, along with trends in manufacturer market share, performance and segmentation.

## **Educational Track: Technical & Government Regulations**

### **Industrial Adhesive VOC Regulations and Their Effects on Single Ply Roofing**

***Bill Schneider***

Single-ply roofing is an area that has been affected by the OTC's regulation of chemicals as the adhesives and primers used for adhesion have typically used solvents. In this presentation, a brief background and status of VOC regulations is given, followed by a review of alternate technologies currently available to comply with the regulations.

### **Environmentally Friendly Polyurethane Solutions for Adhesives and Sealants**

***Jay A. Johnston***

This presentation provides an overview of the newer polyurethane chemistries that reduce volatile organic chemicals (VOCs), while presenting the pros and cons of these chemistries and highlighting their environmentally-friendly nature.

### **A Former EPA Official's Perspective on TSCA Reform: Realizing a More Workable and Effective US Chemicals Law**

***Charles M. Auer***

This session presents key issues as related to TSCA reform, as well as needs and approaches that should be considered in developing new legislation. Featured topics include periodic reporting/updating of hazard and exposure information; greater public access to risk information while protecting trade secrets; and recognition of the crucial role of innovation in development and commercialization of sustainable products and technologies.

## **Educational Track: Sustainability & Green Technologies**

### **Opportunities for Composites & Adhesives in "Green" Building Materials**

***Bob Moffit***

One of the largest growth areas for bio-based polyesters in composites is in the building and construction industry, largely driven by green building programs. This presentation reviews the current application areas for "green" resins, discusses the market drivers for green materials, explains how green building initiatives and other programs may impact adhesives used in composite applications, and provides growth opportunities for composite fabricators and adhesive suppliers.

### **"Green" Market Expectations & Sustainable Supply Chain Issues**

***Ross Spiegel***

This session examines trends opportunities and challenges for manufacturers in a "green" supply chain.

### **Delivering What End Users Want From Manufacturers - Solving the Puzzle**

***Ross Spiegel***

This presentation reviews the types of information that end-users need to select their products and solve the puzzle of information needs.

## **Educational Track: Business Development & Market Trends**

### **Mergers & Acquisitions**

#### ***Phil G. Phillips***

With dynamic consolidation challenges in the adhesive and sealant industry, some companies will meet the challenge and thrive by adapting and changing their offering 'footprint', while others will either be acquired or simply go out of existence. It is important to recognize and successfully manage the drivers that lead a company to one of those destinations. This presentation will provide suggested methods to cope with these changes.

### **Hot Melt Heats Up in India's Growing Economy**

#### ***Larry Saidman***

This presentation provides an overview of the latest trends in hot-melt adhesive application—including packaging, general assembly, disposable hygiene product, and automotive manufacturing—in the Indian market.

### **Home Star Update - Toward the Finish Line in the Senate**

#### ***Larry Zarker***

ASC manufacturers and their customers are at the epicenter of the Home Star program because their products help contractors tighten and air seal building envelopes. Learn about the key provisions of Home Star and what you can do to gain competitive advantage in the growing home energy retrofit market.

### **Re-usable, Environmentally-Friendly Tanker Supply Concept for Hot Melt Pressure Sensitive Adhesives**

#### ***Dr. Barbora Láňová***

Novamelt has developed a solution to sufficiently thermally stabilize hot-melt pressure sensitive adhesives (HMPSAs) to allow transport in heatable mobile tank containers and has fitted its production plant with equipment required for filling tank trucks. Learn about the advantages of these new HMPSAs and the extensive research Novamelt conducted to develop this new solution.

## **Educational Track: Technical & Government Regulations**

### **A New Cost Effective VAE Copolymer Dispersion for the Adhesive Formulator**

#### ***David Horwat***

Wacker Polymers describes how the latest advancements in VAE technology have become the new, next generation dispersions for the adhesives industry. Included is an overview of its newest offering, EP1400, which is specifically designed to offer a new balance of cost effective performance by satisfying the latest world megatrends for low VOC emissions, ultra low formaldehyde content and zero extractibles.

### **A Novel, New Non-phthalate Plasticizer for Adhesives and Sealants**

#### ***Ron Raleigh***

Recently increased regulatory pressure and consumer perception of phthalate plasticizers has driven plasticizer producers to develop innovative new products that seek to maintain the plasticizer

performance characteristics of phthalates. This new plasticizer brings an array of properties akin to current general purpose phthalate products.

### **"Improved Adhesive Performance with Functionalized Low Molecular Weight PE and PP Additives in APAO, and mEO Hot Melt Adhesives"**

***Ernie Ballester and Art Knobloch***

Honeywell has completed studies in APAO & mEO adhesive systems demonstrating boosts in adhesion using functionalized low molecular weight polyethylene and polypropylene additives. Such additives are particularly effective for cold temperature applications. Adhesion performance, viscosity, clarity and open and set time data are presented.

### **Introduction of a New Benzoate Plasticizer Product for Latex Applications**

***Emily McBride***

Benzoates are, by nature, non-phthalates and have gained attention as phthalate replacements. This presentation will introduce a benzoate plasticizer that has been developed for the global market with basic performance data to demonstrate its use in latex adhesives.

### **Educational Track: Sustainability & Green Technologies**

#### **Green Mixing Technology: In-line Mixing Technology and Static Mixers**

***Florian W. Mendheim***

Conventional batch mixers need cleaning, create waste product and are limited with their minimum and maximum capacities by the size of the mixer. Modern static mixer systems are self cleaning (no cleaning detergents necessary) and produce nearly no waste product. Learn how green technology meets total flexibility for the benefit of nature and sealant and adhesive producers.

#### **Soy Bio-based Alternatives for Existing Petrochemical Polymers in Adhesives and Composites**

***Connie Howe***

This presentation gives an overview of soy sustainability, review soy protein and oil chemistries, and highlight projects involving soy proteins. Emphasis is placed on the present technology of using bio-based alternatives for existing petrochemical polymers in adhesives and coatings.

#### **IMPACT™ Technology A Greener Polyether Process**

***Jack Reese, Don Wardius, Robert Lenahan, Robert Gastinger, Mark Morrison***

This presentation describes the IMPACT process and details its advantages, which include generating less waste, eliminating process steps and equipment, and improving safety.

#### **Energy Efficiency: Proper Use and Maintenance of Sealants/Seals Means Less Energy Use**

***Michael Schmeida***

For years, building envelope sealing technologies—sealants and associated products—have been used to protect buildings from moisture intrusion and increase occupant comfort by reducing “drafts.” Often, potential energy cost reductions are not fully realized because sealants are not properly installed. This presentation discusses the proper use of sealants in conjunction with

appropriate system selection to ensure best practice building construction/operation and energy savings.

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### **EXCLUDED PRESENTATIONS**

At the speaker's request, the following presentations are not available for publication, and therefore, are not included in the 2010 Fall Convention Proceedings package.

**Connect+Develop™: How P&G's Open Innovation Process Works**  
*Ebrahim Rezai and John Molander, The Procter & Gamble Company*

**Characterization and Assessment of Standard Titanium Pre-treatments for Adhesive Bonding to Composites**  
*Dr. Farshad Salamat-Zadeh, TWI Ltd.*

**Characterizing Elastomeric Seal Durability for Fuel Cell Application**  
*Dr. Dave Dillard, Virginia Tech*

**Market Size/Segmentation and Drivers of Pressure Sensitive Adhesives**  
*Dan Murad, The ChemQuest Group*

**Portrait of an Adhesive & Sealant Company in Five to 10 Years**  
*Dan Murad, The ChemQuest Group*

**EPA Action Plan for Diisocyanates**  
*Karyn Schmidt, American Chemistry Council*

**LCA Challenges and Opportunities**  
*Paul Firth, UL Environmental, Inc.*