



#### PITTSBURGH SOCIETY FOR COATINGS TECHNOLOGY

### **MARCH 14, 2011**

**TOPIC:** Fine Points of Epoxy Chemistry for the Formulator

(or What you don't know can hurt you)

**SPEAKER:** Mike Watkins, Vice President, Cypress Chemical Consulting, Inc.

PLACE: SPAGHETTI WAREHOUSE / 412-261-6511

**2601 Smallman St., Strip District** (Free Parking in Lot off of 26th Street.)

TIME: Board Meeting 4:00 pm

Happy Hour 5:00 pm
Presentation 6:00 pm
Dinner / Meeting 7:00 pm
Adjourn 8:00 pm

COST: Members: \$30 w/reservation / \$35 at door / Retired/Job Seekers: \$10

**RESERVATIONS:** 

Debra Longhini by MARCH 11 • longhini@ppg.com or 412.434.2236

#### A MESSAGE FROM THE PRESIDENT

I hope that everyone is over the Steelers Super Bowl loss. On my end, I have not seen work being this quiet for a while. I am sure Steelers will make it there again soon.

We did not have a speaker for February due to Valentine's day. We will continue our meetings in March and April. The May outing will be the last time that we will be getting together for this fiscal year. In March, we will have Mike Watkins talk about fine points of epoxy chemistry.

The ground hog predicted that it will be an early spring but the news yesterday was saying that it is going to be a cold spring. I want to bet my money on weather experts rather than the groundhog. Keep warm everybody

Abdullah Ekin

PSCT President 2010-2011

#### **SPEAKER'S BIO:**

MIKE WATKINS is a polymer chemist with over 36 years of experience developing high performance industrial coatings for a number of companies, including Sherwin-Williams, Battelle Columbus Laboratories, Shell Chemical Company, and Hexion Specialty Chemicals. Mike spent 23 years in the epoxy business designing resins, curing agents, modifiers, and formulated systems. During that time, he helped epoxy formulators around the world to develop many new products and processes.

#### **ABSTRACT:**

Experience has shown that epoxy formulators understand very well factors like raw material selection (resins, modifiers, curatives, pigments, etc.), stoichiometry, mix ratios, etc. However, experience has also shown that even the best formulators often do not understand many of the details about epoxies which can still impact the performance of their finished formulations. Examples will be used to illustrate these issues. This talk should increase the awareness of a number of these details, and should help the formulator to overcome some of the generally unanticipated problems which can be encountered in designing high performance epoxy coatings.

#### PSCT BROCHURE

A new brochure to help promote the PSCT to area businesses and individuals is now ready. Copies will be available at the March meeting or by contacting Jim Wasik.



#### **MEETING SCHEDULE**

For the remainder of this season the PSCT will alternate meetings between the Meadows in Harmarville and the Spaghetti Warehouse in the Strip district of Pittsburgh. For future meetings at the Spaghetti Warehouse a microphone and sound system will be used to try to overcome the noise from the kitchen.

> Spaghetti Warehouse March 14

April 11 Meadows

Spouses outing May

Tim Hurley graciously volunteered to plan the season ending outing again. If you have any suggestions for this year please contact Tim at thurley@ppg.com.



14600 Detroit Avenue Suite 600 Lakewood OH 44107



#### Andy DePage

Technical Sales Representative

800 • 729 • 8900 x 222

216 • 228 • 9916 fax

248 • 705 • 2776 car

agdepage@mfcachat.com

www.mfcachat.com



#### **Chad Hack**

Technical Sales Representative

BYK USA Inc. 1380 Fieldstone Court Ann Arbor, MI 48108 www.byk.com

Chad.Hack@altana.com

Telephone (734) 913-9060

Chad.Hack@altana.com

A member of C ALTANA



#### Linda Lee Wolf

President/Owner Tel: 724.940.2222 Fax: 724.940.2236 Mobile: 412.670.1679

#### WOLF CONTAINER & CHEMICAL CO., INC.

Packaging & Chemical Products

2591 Wexford - Bayne Road, Suite #303 Sewickley, Pennsylvania 15143

lindaw@wolfcontainer.com

#### http://www.paint.org



## **NEWS**

#### Concrete Coatings March 10, 2011 Mike Praw, BASF

1:00 pm to 2:00 pm (ET)

This webinar will discuss the current available technologies for concrete coatings as well as low VOC technologies and options. With environmental regulations and advances in dispersion and emulsion technologies, chemists and formulators are confronted with several and confusing choices. We will help provide chemists and formulators with a better understanding and assess performance balance for concrete substrates. Benefits and performance properties of the current and newer technologies are presented together with several practical options.

Concrete coatings are an extensive subject that encompasses a wide variety of protective, functional and decorative coatings. The choice of coatings is determined by the substrate (concrete) condition, environmental issues and the desire performance properties. Whatever the ultimate purpose of the coating may be it is crucial that we understand Concrete as a substrate as well as its proper surface preparation.

Concrete is most commonly used building material, it is a mixture of water, Portland cement, aggregates (sand, gravel), pozzolans (soda ash) and air (added on purpose). Water in this mixture combines with cement to form a rigid mass called concrete. Usually concrete is strong, however environmental elements like water and UV attach the surface both physically and chemically. Concrete surfaces are porous and often exposed to water, UV and environmental conditions. Physical attacks cause cracking; concrete being porous, water is absorbed and released within the concrete and causes spalling or cracking. Therefore it is necessary to protect its surface from deterioration and contamination by applying a coating. Surface preparation is also of prime importance to the durability and adhesion of applied coatings.

In the recent years decorative coatings for concrete have gained popularity and are primarily based on acrylic emulsions. Emulsions include pure acrylic, acrylic styrene, epoxy acrylic, and vinyl acrylics. This technology also provides protective and functional value - chemical resistance, good corrosion and weathering resistance, alkali resistance, abrasion resistance, dirt pick-up resistance and good gloss. Most of the 1K pigmented commercial coatings fall in to this category.





www.paint.org/meetings

## Advanced Environmental Management Systems March 24, 2011 1:00 pm to 2:00 pm (ET) Steve Sides CIH, MS and Dave Darling PE, MS, American Coatings Association

Leading companies and organizations have increasingly begun to use Environmental Management Systems (EMS) to organize and administer an ever-expanding slate of site, facility and firmrelated environmental performance requirements. Traditionally, most EMS requirements have focused on bolstering compliance with existing legislation and regulation. Recently, however, more advanced EMS have moved "beyond compliance" to embrace broader performance objectives. These broader objectives include those emanating from corporate sustainability initiatives, output from expanded life-cycle assessments (LCA) of manufacturing activities, and assessment of facility/locationspecific ecosystem impacts. This VLC will provide a brief review of the most active EMS constructs in the coatings industry, ISO 14001 and Coatings Care®, provide information on the business value that has accrued to current participants, and the associated changes in environmental performance that can be expected. New and creative initiatives that are expanding the boundaries of traditional EMS will also be detailed, and the demise of some longstanding EMS-related initiatives will be chronicled. Participants will also gain perspective from short, illustrative case studies of participants from different industry EMS.

## Coatings Rheology I - Fundamentals April 7, 2011 1:00 pm to 2:00 pm (ET) Raymond Fernando, California Polytechnic State University

Scientific approach is very common today in R&D and technical problem solving related to a wide range of coating issues. However, trial-and-error is still the most prevalent approach when it comes to addressing rheological issues. Often, major problems related to rheology do not come to surface until scale up of laboratory formulations. A trial-and-error approach is very resource-intensive, especially during the scale up stage. Prerequisites for the scientific approach are the combined knowledge of how coating formulation ingredients and their interactions impact rheological properties (structure/property relationships), and how these properties impact real-world flow behavior (property/performance relationships) of coatings during mixing, pumping, application, and flow and leveling, etc. This two-part course is designed to provide coating formulators with the necessary foundation for both of these aspects.

This course covers important rheology parameters (viscosity, shear-thinning, thixotropy, viscoelasticity, etc.) and their measurement. How these parameters are related to various formulation aspects is discussed.

## COATINGSTECH • conference THE NEW FACE MARCH 14-16, 2011 of Innovation

http://www.paint.org/meetings/coatings\_tech.cfm

#### **COATINGSTECH CONFERENCE**

#### March 14-16, 2011 Hilton Rosemont/Chicago O'Hare / Rosemont, IL

This 2nd biennial conference seeks to provide a multi-track forum for all professionals in the coatings industry. Sessions will provide insight into advancements in the coatings industry and provide a look at the future of coatings technology from industry leaders. Leading off this signature educational event will be four informative half-day Technology Short Courses held on Monday March 14, 2011.

#### **CONTINUED FROM PAGE 3**

## Coatings Rheology II - Applications April 14, 2011 1:00 pm to 2:00 pm (ET) Instructor:

#### Raymond Fernando, California Polytechnic State University

Scientific approach is very common today in R&D and technical problem solving related to a wide range of coating issues. However, trial-and-error is still the most prevalent approach when it comes to addressing rheological issues. Often, major problems related to rheology do not come to surface until scale up of laboratory formulations. A trial-and-error approach is very resource-intensive, especially during the scale up stage. Prerequisites for the scientific approach are the combined knowledge of how coating formulation ingredients and their interactions impact rheological properties (structure/property relationships), and how these properties impact real-world flow behavior (property/performance relationships) of coatings during mixing, pumping, application, and flow and leveling, etc. This two-part course is designed to provide coating formulators with the necessary foundation for both of these aspects.

Focusing on key rheological properties that control their application behavior, this course will examine a number of real-world scenarios to emphasize important principles.

## COATINGSTECH CONFERENCE FEATURED PRESENTATIONS



Keynote Address Tuesday, March 15, 8:15 am - 9:00 am Diana Strongosky, The Sherwin-Williams Company Challenges and the Need for Innovation in the Coatings Industry



Mattiello Memorial Lecture Tuesday, March 15, 1:00 pm - 2:00 pm Tinh Nguyen, National Institute of Standards & Technology Measurement Science for Durability Studies of Sustainable Polymer Coatings

#### THE NEW FACE OF INNOVATION

Join the ACA for the 2011 CoatingsTech Conference. This key educational program seeks to provide a multi-track forum for all professionals in the coatings industry.

Embracing the theme "The New Face of Innovation," this 3-day event will showcase the industry's most innovative methodologies and applications. During the sessions, industry leaders will provide insight into advancements in the coatings industry and offer a glimpse at the future of coatings technology.

Leading this signature event are four informative Technology Short Courses, to be held on Monday, March 14.

For information, registration and the conference program contact Starsha Valentine at svalentine@paint.org or 202-462-6272.

Expand your company's exposure by participating in our sponsorship program or purchasing a tabletop exhibit. For more information contact Dorothy Brawner at dbrawner@paint.org or 202-462-6272.



#### Carl J. Alessandro Senior Technical Sales Representative

BYK USA Inc. P.O. Box 360136 Strongsville, OH 44136 www.byk.com Telephone (440) 238-8014 Telefax (440) 238-8520 Cell (216) 390-3647 Carl.Alessandro@altana.com

A member of C ALTANA

# CHEM-MATERIALS COMPANY SERVING INDUSTRY RESPONSIBLY 16600 Sprague Road Cleveland, Ohio 44130-6318 Cmc@chem-materials.com (440) 243-5590 Telephone (800) 585-0808 Toll Free (440) 243-1940 Fax cmc@chem-materials.com e-mail www.chem-materials.com website

#### May 18-20, 2011 Sheraton Oceanfront Hotel Virginia Beach, VA

This three-day Marine & Offshore Coatings Conference will offer a dual-track forum for professionals who research, develop, specify or use coatings, as well as for coatings manufacturers, end-users, and sales personnel, including:

- Formulators and R&D personnel
- Ship yard and dry dock facilities personnel
- United States Navy and Coast Guard
- Classification societies
- Standards setting organizations
- Regulatory agencies
- · University staff and students

This conference will provide a unique platform for discussion of innovative technologies and best management practices for the regulation of protective marine coatings. This conference will offer one track focused on technology advances and research, and an alternative track for managerial and sales personnel.

#### THEMES AND SUGGESTED TOPICS

Technology Advances New Technologies Emerging issues

- Topside coatings
- Void Space and ballast coatings
- Nanotechnology
- Testing and evaluation of products
- Unique raw materials and coatings
- Corrosion control

#### Fouling and Anti-Fouling

- Natural products
- Silicone
- Biocides
- Invasive species
- Fouling release coatings
- · Lay-up coatings

#### Best Management Practices

Short-and-Long-Term Regulatory Issues

- Dome testing
- Greenhouse gases
- Low-VOC yacht coatings
- Environmental regulations

#### **Regulatory Updates**

- Clean air regulations
- Navy and shipyard updates
- · Liability issues

#### **Industry Demand**

- Shipyard and end-user perspective
- Cleaning methods
- Consumer uses

#### Information for Speakers

- In order to comply with the expectations of the conference attendees, all submitted abstracts and subsequent papers must be non-commercial in style and reflect the highest professional standard.
- All abstracts will be reviewed by the Marine Coatings Conference Task Force whose decision will be based on originality, quality, and relevance to the marine and protective coatings industry.
- Speakers will not be compensated and are expected to pay their own travel, lodging, and per diem expenses.
- All presentations will be distributed to registered attendees in the Conference Proceedings.

#### September 13-14, 2011 International Wood & Wood Composites Conference Charlotte, NC

September 14-15, 2011 Polyurethane Technology Conference Charlotte, NC

## VIRTUAL LEARNING CONFERENCES (VLCS)

#### March 10, 2011, 1:00-2:00pm (ET)

Concrete Coatings Mike Praw, BASF

#### March 24, 2011, 1:00-2:00pm (ET)

Advanced Environmental Management Systems Steve Sides CIH, MS and Dave Darling PE, MS, American Coatings Association

#### April 7, 2011, 1:00-2:00pm (ET)

Coatings Rheology I - Fundamentals Raymond Fernando, California Polytechnic State University

#### April 14, 2011, 1:00-2:00pm (ET)

Coatings Rheology II - Applications Raymond Fernando, California Polytechnic State University

#### **VLC ON DEMAND**

ACA is offering its popular series of Virtual Learning Conferences to be available when it is most convenient for you. Without leaving your home or office, you can stay current with the latest technical innovations, review coatings fundamentals, or gain from in-depth industry analyses. Each program is available for purchase via digital Internet file (including downloadable PDF document), or in CD-ROM format.

The cost for each course is \$69 for ACA members and \$169 for nonmembers. Please contact ACA's Starsha Valentine at svalentine@paint.org or 202-719-3698 to purchase and obtain your VLC program.

## Pittsburgh Society for Coatings Technology 2010-2011 Hiram P. Ball Memorial Scholarship Application

#### **APPLICATION DEADLINE: MARCH 31, 2011**

Applicant:		
		Fax:
	(GRADUATING HIGH SCHOOL SENI	
College / Unive	ersity (2010-2011):	Grade Point Average:
Major Course c	of Study:	,
PSCT Sponsor	ing Member:	
PSCT Member	Company:	
your career go service, etc. (ex	als. It should also include comments regard	explaining how the course of study you are following will allow you to reach right the student's participation in on academic areas such as community CANTS are requested to submit character references from teachers, clergy ident's goals and aspirations.
Signature:		Date:
Return to:	Mark Harley, PSCT Education Chairman 530 – 6th Street	

#### REQUIREMENTS

- The PSCT Board of Directors will determine the total amount of scholarship money to be awarded each year.
- The maximum dollar amount of each scholarship will be \$1500. Scholarship money will be awarded equally to students as recommended by the Scholarship Committee.
- Scholarship awards are to support undergraduate studies of full time students only en-rolled in an accredited college or university seeking an associate or bachelor degree.
- Scholarships may be awarded to any one given applicant a maximum of four times.
- Applicant must be the child of an actively participating PSCT member. An actively participating member is current with dues. The
  member must also attend at least four (4) PSCT meetings a year or serve on a PSCT committee (e.g.: Fund Raising, Newsletter, Membership, Education, Program, etc)
- Scholarships are limited to one award per applicant per member per year.
- Applicants must submit a Hiram P. Ball Memorial Scholarship Application which in-clude: a short essay explaining how the course of study will allow the student to reach their career goals; current GPA; name of sponsoring PSCT member; name of univer-sity or college that they are attending; and two character references. Students cur-rently receiving scholarships will not be required to submit references, however they must submit essays regarding their educational progress.
- Applicants must maintain a 2.5 (out of 4.0) grade average.

Oakmont PA 15139

- The Scholarship Committee will consist of five PSCT Members who do not have a child or relative applying for a scholarship.
- COURSE OF STUDY: Although all courses of study are open, students are encouraged to pur-sue scientific, engineering or mathematical programs that lead to employment in the Coat-ings Industry.
- CHARACTER REFERENCES (examples of those who know the student and their goals)
  - Teachers

Clergy

Employers

- Neighbors/Friends
- Professionals (doctors, business people)

Revised: 8/2010

## **PSCT Membership Application and Dues Renewal Form for 2010-2011**

1. MAILING ADDRESS:		2. CONTACT INFORMATION:	
Name:			
Company:		Work Phone:	
Address :		Fax:	
		Toll Free:	
City:		Home Phone:	
	tal Code:	Email:	
3. MEMBERSHIP DUES			
☐ Primary Full Membership \$30 ☐ Secondary Full Membe		30 Student/Educator \$5	
*Please indicate primary society	membership:		
5. PAYMENT INFORMATION:	☐ Check payable to PSCT		
6. SIGNATURE AND DATE: (Req	uired)		
Signature:		Date:	
7. RETURN FORM AND CHECK	Terry Scheftic/PPG Industrie 151 Colfax Street Springdale, PA 15144	s, Inc. tscheftic@ppg.com	
OFFICIAL USE ONLY:			
Total Amount Due: \$	Certified by Society Member	Date	

#### AMMONIA FOR INDUSTRY

1 qt., 4-1 gal, 5 gal, 15 gal, 50 gal, totes 200-300 gal. Any concentration available as well as private labeling.

We are a leading manufacturer of reagent grade ammonia solutions with over 50 years' experience. Our modern facilities, extensive research and development, and emphasis on quality, service, reliability, and integrity assure you, our customer, of complete satisfaction in all our products.





Please give us the opportunity to become your ammonia supplier.

Thank you, Paul A Cuccinello CEO paul@wdserviceco.com

W.D. Service Company 780 Creek Road PO Box 147 Bellmawr, NJ 08099 800-366-9326 www.wdserviceco.com



The Premier Specialty Chemicals Distributor

Steve St. Jean

sstjean@palmerholland.com

216-272-2782 - cell

Main Phone: 440.686.2300 Toll-Free: 800.635.4822

www.palmerholland.com

ISO 9001:2008 Certified



#### **PSCT OFFICERS FOR 2010-2011**

**PRESIDENT** Abdullah Ekin **Bayer Material Science** 100 Bayer Road Pittsburgh PA 15205-9741 412-777-2703 abdullah.ekin@bayer.com

VICE PRESIDENT Timothy Knell **Shore Corporation** 2917 Spruce Way Pittsburgh PA 15201-1508 412-471-3330 tknell@shorecorporation.com

**SECRETARY Gary Balint** Lanxess Corp. 8 Morgan Road Burgettstown PA 15021 412-809-4735 gary.balint@lanxess.com

**TREASURER** Debra M. Longhini PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272 412.434.2236 longhini@ppq.com

PAST PRESIDENT Cyndy L. Sherman PPG Industries, Inc. 151 Colfax Street Springdale PA 15144 724-274-3409 clsherman@ppq.com

**DIRECTOR AT LARGE** Peter Chakos Neville Chemical Co. 2800 Neville Road Pittsburgh PA 15225 412-777-4244 pchakos@nevchem.com REP. TO ACA SOCIETY LIAISON COMMITTEE James A. Wasik PPG Industries, Inc. 151 Colfax Street Springdale PA 15144 724-274-3307 wasik@ppg.com

**MEMBERSHIP** Terry Scheftic PPG Industries, Inc. 151 Colfax Street Springdale PA 15144 724-274-3337 tscheftic@ppg.com

**EDUCATION & SCHOLARSHIP** Mark Harley 530 6th Street Oakmont PA 15139 412-828-2568

**BYLAWS** Raymond Stewart Bayer Material Science LLC 100 Bayer Road, Bldg. 8 Pittsburgh, PA 15205 raymond.stewart@bayerbms.com

#### ADVERTISMENT REMINDER

We would like to thanks all the suppliers who have advertised with us in the past and hope we can count on your continued support. If companies want their logo and company name displayed on the PSCT website, please contact Alyssa Herzing (herzing@ppg.com) and non-member visitors will see your name when they log onto our site. Advertisers please contact Deb Longhini for details at longhini@ppg.com

#### HARVEY LIPSITZ CO.

Steel Containers . Tin Cans . Plastic Pails Plastic Bottles . Glass Jars



**MEL S. LIPSITZ** 

5621 BUTLER STREET PITTSBURGH, PA 15201

PHONE: 412-782-2461 hlipcans@hotmail.com http://www.weldonlabs.com/



Testing and Failure Analysis for the Coatings Industry

Dwight G. Weldon

PRESIDENT

1188 Route 30 P.O. Box 40 Imperial, PA 15126

Phone: 724-695-2212 Fax: 724-695-2218



MATTESON - RIDOLFI, INC.

#### EDWARD TYSL

Home Office 33271 Ambleside Drive Avon Lake, OH 44012 Cell Phone: 440-237-1849 etysl@mattrid.com

Corporate Office 14450 King Road P.O. Box 2129 Riverview, MI 48193 Customer Service: (800) 275-4503 Fax: 734-479-1630

FTC.







Representing the World's Best Your one-stop solution supplier for pigments, functional minerals, specialty additives, resins and more.

16485 Rockside Road

Cleveland, Ohio 44137-4336 www.dar-techinc.com

Toll Free 800 228-7347 Fax 216 663-8007

**Ed Kaczmarek / Jim Benduhn** 



#### CONN AND COMPANY, L.L.C.

Designers and Manufacturers of Industrial Mixing Equipment for PAINTS ADHESIVES URETHANES

Richard C. Freeman

INKS

11 S. Marion Street • Warren, PA 16365

**SINCE 1948** 

814-723-7980 / FAX 814-723-8502 www.connblade.com

CEMENTS

A.C. Zoller Company Manufacturers' Representative

> Alan C. Zoller Mark A. Zoller

Chemicals & Equipment for Industry mark.zoller@aczoller.com

P.O. Box 289 740 Seventh Street Oakmont, PA 15139 412-828-8040 Fax 412-828-7219