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PITTSBURGH SOCIETY FOR COATINGS TECHNOLOGY



TOPIC: Diatomite as a Matting or Flatting agent: Mechanisms & Properties

SPEAKER: Dr. Eric Fernandez, PhD, EP Minerals

PLACE: Freddie's at Bayer Material Science
100 Bayer Road, Building #6 Pittsburgh, PA 15205



Bayer Material Science

TIME:	Board Meeting	4:00 pm
	Social Hour	5:00 pm
	Presentation / Speaker	6:00 pm
	Dinner / Meeting	7:00 pm

COST: \$30 with reservation / Retired \$10 / \$35 at door or online registration

RESERVATIONS: Contact Christina Marlier by Thursday, Dec. 5 at treasurer@paintsociety.org or 215.510.8397

SPEAKER'S BIO

DR. ERIC FERNANDEZ is the Director of Business Development for Coatings and Antiblock at EP Minerals, the second largest producer of diatomite in the world. Eric received a Ph.D. from the University of Washington in Engineering and an MBA from the University of North Florida. He has a strong background in the defoamer market, with sales and product development focused on metal working, paints and coatings, oil and mining and personal care. He most recently held the position of Business Development Manager – Industrial Applications-Defoamers for Clariant Corporation. He also held other product management and technical marketing positions for Wacker Chemicals and Hercules. Additionally, he has several patents and he has published in various peer review journals.

ABSTRACT

DIATOMITE AS A MATTING OR FLATTING AGENT: MECHANISMS AND PROPERTIES

Diatomite is well known as matting or flatting agent. In the current presentation, we will propose mechanisms and properties such as packing factors, roughness, and composite refractive index that make Diatomite such a successful product. We will also present calculations of sedimentation rates as well as an approximate method to determine packing density and particle density from oil absorption (OA), wet bulk density, and silica specific gravity. We will propose a methodology to compare particles based on volume OA as compared to weight OA since paint performance is based on volume and not weight. We will also show theoretical calculations of the Critical Pigment Volume Concentration (CPVC) from OA at various Diatomite percentages that match experimental work. Finally, we will recommend a new approach to compare minerals for flatting paints based on packing factors.

PRESIDENT'S MESSAGE

Dear PSCT Members:

The holiday season is here and I hope everyone takes the opportunity to enjoy festivities, relax, and reflect on the many blessings of the past year. I wish you all a Merry Christmas and Happy New Year and hope to personally do so at the December meeting.

I would like to thank last months' speaker – Jim Gauntner of Q-Lab Corporation for his presentation on exterior coatings on wood which was very informative. By the number of attendees, Jim's presentation was well received.

I also owe a special thank you to our PSCT Treasurer, Christina Marlier for her clear and succinct report on the society financials at the November meeting.

Bayer Material Science will again be sponsoring the December meeting on the Bayer Corporation Campus. The meeting will be at Freddie's – Building #6 on the Bayer Campus in Robinson Township. If you have never been to the Bayer Campus, Building #6 is the building to the left of Building #4, which is the building with the giant "Bayer" sign. All of the funds raised from the December meeting will be applied to the Scholarship Fund for the children of eligible PSCT members. Please make an extra effort to attend. Our December speaker is Dr. Eric Fernandez, Director of Business Development for Coatings and Antiblock at EP Minerals. Dr. Fernandez is an expert on the uses of diatomite in coatings, and will be speaking on "Diatomite as a Matting or Flatting agent; Mechanisms and Properties".

The meeting registration and payment is now available on The Pittsburgh Society for Coatings Technology website, paintsociety.com or paintsociety.org. The meeting notice and president's message will be available and updated each month.

The PSCT Membership Application and Dues Renewal Form are available in this newsletter for convenience. Please note that if you have renewed and have not received a membership certificate please let us know by contacting Britney Grabigel - Membership Chair. Britney can be reached at 724-274-3548 or grabigel@ppg.com. We always welcome new faces, new insights, and fresh perspectives.

Finally, if you have a High School Senior or College level student, and plan on meeting the requirement for the Hiram P. Ball Memorial Scholarship by attending at least four meetings please be advised that there are four meetings including December before the March 2014 submission deadline.

Cindy O'Malley,

PSCT President 2013-2014

ACA UPDATE

The ACA Society Liaison Committee Meeting was in Las Vegas on October 21, 2013. The meeting was part of the Western Coatings Societies Symposium held at the Paris Hotel. Eleven different Societies from across the US were represented at the meeting and were joined by several members of the ACA staff. The ACA and each of the society liaisons discussed the current membership levels, changes from the past membership levels and expected changes based on employers in the general area. The main focus was attraction of members to the meetings and various meeting times and topics.

The Mission statement of the Liaison Committee was reviewed and discussed. There were no changes proposed and the networking/educational focus of the statement was the basis for the rest of the discussions. Last year was the first webinar program coordinated by the Liaison Committee and the challenges that arose were discussed as well as setting up a sub-committee to select future speakers. The next meeting will take place at the American Coatings Show in April of 2014. Further information about educational webinars will be forthcoming.

MEMBERSHIP RENEWAL

For those members who have not yet renewed their membership, you can contact Britney Grabigel to renew your membership at grabigel@ppg.com or at 724-274-3548. You should have received an e-mail from Britney with the membership renewal form. If you renewed online through the ACA website, please confirm your status with Britney.

Renew online at <http://www.paintsociety.org/join/>

GOLF OUTING SPONSORS

The PSCT would like to issue an apology to the following sponsors of the 2013 golf outing who were inadvertently not included in the list of sponsors present in the October newsletter. We appreciate your support:

The Cary Company • Todd Katres • Reitech



NEW WEBSITE

Please visit <http://paintsociety.org> or paintsociety.com and view the new website, including the current newsletter, President's message, photos from the golf outing and more. Don't forget you can RSVP and pay for the upcoming dinner meeting from the home page of the website!

PAINT POT

The winner of the November Paint Pot was **Abdullah Ekin** of Bayer Material Science. Abdullah took home a pot of \$50. Congratulations Abdullah!

2014 MEETING SCHEDULE

Please mark your calendars for the great meetings ahead:

January 13, 2014 February 10, 2014
March 10, 2014 April 14, 2014
May Outing: (TBA)

ADVERTISEMENT REMINDER

We would like to thank all the suppliers who have advertised with us in the past and hope we can count on your continued support. If companies want their advertisement displayed in the PSCT monthly newsletter, please contact Christina Marlier at 215-510-8397 or christina.marlier@EM-Dmillipore.com

PSCT SCHOLARSHIP

The requirements for the PSCT Scholarship Program remain the same as the 2012 - 2013 year. The major change instated last year in the requirements for the General Hiram P. Ball Scholarship is an increase in the cumulative grade point average from 2.5 to 2.75. The Pittsburgh Society for Coatings Technology is a science and technical society to promote the welfare of the coatings Industry. The Society will continue to offer an additional grant to one student who is enrolled in a technical course of study. This Grant will be awarded to one Hiram P. Ball Scholarship recipient who meets the extra requirements: has a declared Science, Technology, Engineering or Mathematics major, entering the Junior or Senior Year, and has a 3.0 minimum grade point average in courses directly related to the declared major. (see application for specific requirements). The Grant will be \$500 in addition to the Hiram P. Ball Memorial Scholarship award.

2013 EDUCATIONAL PROGRAMS BY ACA:

www.paint.org/events/virtual-learning-conferences.html

Conference - January 20, 201 1:00 - 2:00 pm
Coatings for Concrete Conference
Planet Hollywood Resort and Casino - Las Vegas, NV

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PSCT Membership Application and Dues Renewal Form for 2013-2014

1. MAILING ADDRESS:

Name: _____

Company: _____

Address : _____

City: _____

State/Prov: _____ Postal Code: _____

2. CONTACT INFORMATION:

Work Phone: _____

Fax: _____

Toll Free: _____

Home Phone: _____

Email: _____

3. MEMBERSHIP DUES

☐ Primary Full Membership \$30

☐ Secondary Full Membership \$30

☐ Student/Educator \$5

☐ Retired Member \$5

*Please indicate primary society membership: _____

5. PAYMENT INFORMATION:

☐ Check payable to PSCT

6. SIGNATURE AND DATE: (Required)

Signature: _____ Date: _____

7. RETURN FORM AND CHECK

Britney Grabigel / PPG Industries
151 Colfax Street
Springdale, PA 15144

grabigel@ppg.com

OFFICIAL USE ONLY:

Total Amount Due: \$ _____ Certified by Society Member _____ Date _____

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**Pittsburgh Society for Coatings Technology
Hiram P. Ball Memorial Scholarship**

**PSCT Science, Technology, Engineering
Mathematics Grant Application**

APPLICATION DEADLINE: MARCH 15, 2014
ALL APPLICANTS MUST ATTACH COPY OF TRANSCRIPT

Applicant (student): _____

Permanent Address: _____

Phone: _____ Email: _____

PSCT Member Sponsor: _____

Present School/University (2013-14): _____

College/University (2014-15) _____

CLASS STATUS:

☐ Graduating High School Senior

College: ☐ Freshman

☐ Sophomore

☐ Junior

☐ Senior

Major Course of Study: _____ Cumulative Grade Point Average: _____

Science, Technology, Engineering, or Mathematics Grant Applicant: ☐

Major Study GPA (last 12 months): _____

FIRST-TIME APPLICANTS: Please submit 2 character references from teachers, clergy, employers, professionals, etc., who are familiar with the student's goals and aspirations.

STUDENT SIGNATURE Date: _____

PSCT SPONSORING MEMBER SIGNATURE Date: _____

Return to: Julie Glover
PSCT Education Chairman
115 Technology Drive
Pittsburgh, PA 15275
jglover@kta.com

Pittsburgh Society for Coatings Technology

Hiram P. Ball Memorial Scholarship

APPLICATION DEADLINE: MARCH 15, 2014

ALL APPLICANTS MUST ATTACH COPY OF TRANSCRIPT

REQUIREMENTS

- The PSCT Board of Directors will determine, in January, 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. The Science, Technology, Engineering and Mathematics grant will be added to the recipient's scholarship award. (See Grant requirements below)
- Scholarship awards are to support undergraduate studies of FULL-TIME students enrolled in an accredited college or university seeking an associate or bachelor degree.
- Scholarships may be awarded to any applicant a maximum of four times.
- Applicant must be the child of an actively participating PSCT member who is current with dues. The member must also attend at least four (4) PSCT meetings or events a year or serve as a PSCT Committee Chair. .
- Scholarships are limited to one award per applicant per PSCT member per year.
- Applicants must submit a Hiram P. Ball Memorial Scholarship Application which includes a short statement explaining how the course of study will allow the student to reach their career goals.
- Applicants must maintain a 2.75 (out of 4.0) grade average.
- 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 pursue scientific, engineering or mathematical programs that lead to employment in the Coatings Industry.
- New Applicants must also submit 2 Character References who know the student and their goals:
 - Teachers
 - Clergy
 - Employers
 - Neighbors/Friends
 - Professionals (doctors, business people)

PSCT Science, Technology, Engineering Mathematics Grant Requirements

The Pittsburgh Society for Coatings Technology is a technical society to promote the welfare of the coatings Industry. The Society will be offering an additional grant to one student who is enrolled in a technical course of study. To be considered for this grant, the student must meet the following criteria. If more than one applicant meets the criteria, the award will be made to the student with the highest cumulative grade point average as of application deadline. If no applicant meets the requirements, no grant will be made.

The decision of the PSCT Scholarship Committee is final in their decision regarding the grant.

Criteria:

- Must meet all other Hiram P. Ball Memorial Scholarship requirements.
- Applicant must have declared a major in Science, Technology, Engineering or Mathematics.
- Applicant must be entering their Junior or Senior year of college or university.
- Applicant must identify course directly associated with declared major curriculum.
- Applicant must have a GPA of 3.0 or greater in these related courses over the past 12 months (including summer school).
- The grant will be an additional \$500 over the Hiram P. Ball Memorial Scholarship award.