



Porcelain Enamel Institute
P.O. Box 920220
Norcross, GA 30010

**2009
TECH FORUM**
**Advance Program
Registration & Hotel
Information**

Porcelain Enamel Institute's
71st ANNUAL PEI TECHNICAL FORUM
24th BACK-TO-BASICS WORKSHOP
18th SUPPLIERS' MART EXHIBIT & RECEPTION

MAY 4-7, 2009

Doubletree Hotel
Nashville, Tennessee



See www.porcelainenamel.com
for more information

TO REGISTER, PLEASE RETURN THIS FORM TO THE ADDRESS BELOW

- ... for EACH registrant, send this completed form along with
(1) check made payable to PORCELAIN ENAMEL INSTITUTE or
(2) complete credit card information provided below to:

PORCELAIN ENAMEL INSTITUTE
P.O. Box 920220, Norcross, GA 30010
Phone 770-676-9366 – Fax 770-676-9368

71st Annual PEI Technical Forum
24th Back-to-Basics Porcelain Enamel Workshop
18th Suppliers' Mart Exhibit & Reception
May 4-7, 2009 Doubletree Hotel, Nashville

Please use a separate copy of this form for each registration!

Name _____

Badge Name _____

Company _____

Street or P.O. Box _____

City _____ State _____ Zip _____

Phone (_____) _____ Fax (_____) _____

E-mail address _____

Your Spouse Attending? (No charge!) Yes No

If so, provide badge name _____

Home phone number (_____) _____

This registration is for (please check):

- Technical Forum Back-to-Basics Workshop
 Equipment Seminar Lochinvar (add \$10 fee)

Registration Fees—

Save money by registering early!

*Tech
Forum* *P/E Basics
Workshop*

If postmarked before April 20, pay

PEI Member	\$375	\$350
Non-Member	\$525	\$500

If postmarked after April 20, pay

PEI Member	\$425	\$400
Non-Member	\$575	\$550

Payment Information –Please check appropriate boxes

Check is enclosed Payment is being made by credit card Visa MasterCard American Express

Credit Card # _____

Expiration Date _____ (Month/Year) CVV2 Number _____

Card Holder Name _____

Card Holder Signature _____

A Word from the Chairman

A full schedule of information-packed technical papers and panel sessions, practical shop-based Workshops and special Seminars to address those everyday plant questions awaits you in Nashville May 4-7. It promises to be another fact-filled program aimed at those involved in shop and laboratory operations as well as those providing materials, equipment and services to the porcelain enameling and related industries. Vice Chairman Mike Horton (KMI Systems) joins me in urging you to make your plans now to attend.

Why not send your registration form to PEI at once and take advantage of the “early registration” savings? And, separately, be sure to make your hotel room reservations directly with the Doubletree Downtown Hotel in Nashville.

This year the popular Suppliers' Mart exhibit and reception will again be held on three evenings—Monday, Tuesday and Wednesday. All day Tuesday there will be another in the series of Back-to-Basics Porcelain Enamel Workshops.

On Wednesday and Thursday AM, the traditional Technical Forum—with its informative technical papers and practical panel sessions—will convene for the 71st time since its beginning in 1937. The meeting's events will conclude with a seminar on Equipment and a Plant Tour to Lochinvar in Mt. Lebanon on Thursday afternoon.

We look forward to seeing you in Nashville.

Peter Vodak, *Chairman*
2009 PEI Technical Forum Committee

Special Information

...Suppliers' Mart—All supplier companies are invited to be a part of the Mart and exhibit on Monday, Tuesday and Wednesday evenings. Costs are:

- (1) 10 ft. booth—\$600 for PEI members, \$900 for non-members;
(2) 6 ft. tabletop—\$400 for PEI members, \$600 for non-members.

Contact Cullen Hackler (see below) for full details on Suppliers' Mart participation.

...Want to Present a Paper?—Please contact Cullen Hackler, Peter Vodak or Mike Horton (see below) for full details on participation.

...Attendance—registration for the PEI events is open to all persons with an interest in the porcelain enameling and related industries.

...Location/Airport Van Service—The Doubletree is located in downtown Nashville. Transportation to and from the Nashville Airport is provided by Gray Line – Tickets can be purchased at the airport.

Questions or Comments? Contact...

- **Cullen Hackler**, Exec. VP, Porcelain Enamel Institute 770-676-9366, Fax 770-676-9368
- **Peter Vodak**, Chairman, 2008 PEI Technical Forum 414-359-4264
- **Mike Horton**, Vice Chairman, 2008 PEI Technical Forum 423-344-1550, Fax 423-344-3550

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Tech Forum Planning Committee

Chairman:	Peter Vodak	A O Smith Corporation
Vice Chariman:	Mike Horton	KMI Systems
	Jason Butz	Engineered Storage Products
	Jeff Dailidas	Nordson Corporation
	Peter Dority	Coral Chemical Company
	Holger Evele	Ferro Corporation
	Phil Flasher	ITW Gema
	Cullen Hackler	Porcelain Enamel Institute
	Mike Koenigstein	Roesch, Inc.
	Kara Kopplin	QTEC Consulting
	Ken Kreeger	Nordson Corporation
	David Latimer	Whirlpool Corporation
	Tony Mazzuca	Pemco Corporation
	Warren Norton	Arcelor Mittal Steel
	Liam O'Byrne	O'Byrne Consulting Services
	Tim Scott	Henkel Surface Technologies
	Lester Smith	Porcelain Consultants
	Larry Steele	Mapes & Sprowl Steel
	Jim Terwilliger	A O Smith Water Heaters
	Dave Thomas	American Trim
	Miles Votava	Ferro Corporation
	Jack Waggener	URS Corporation
	Mike Wilczynski	A O Smith Protective Coatings
	Ted Wolowicz	Electrolux Home Products
	Jeff Wright	Ferro Corporation

2009 PEI Technical Forum and "Back-to Basics" Workshop

Monday, May 4, 2009

Registration and Check-in

12:00PM – 5:00PM	<u>Early arrivals & registration</u>
5:00PM–7:30PM	<u>Suppliers' Mart Reception</u>

Tuesday, May 5, 2009

24th Back-to-Basics Workshop and 18th Suppliers' Mart

Chairman: Holger Evele (Ferro Corporation)

8:30AM – 8:45AM	<u>Welcome and Introductions</u>
8:45AM – 12:00PM	<u>B2B Session One</u> Steel (metal) selection Design and fabrication Cleaning and metal preparation P/E Frit, raw materials & mill additions
12:00PM – 1:15PM	<u>Lunch</u>
1:15PM–5:00PM	<u>B2B Session Two</u> Wet P/E coating Electrostatic powder coating Drying and firing Inspection, handling and storage Defect analysis and troubleshooting
2:00PM–5:00PM	PEI Board of Directors meeting
5:00PM–7:30PM	<u>Suppliers' Mart Reception</u>

Wednesday, May 6, 2009

71st PEI Technical Forum and Suppliers' Mart

8:30AM – 8:45AM

Welcome and Introductions

Peter Vodak – Chairman
Mike Horton – Vice Chairman
Jeff Wright – PEI President

8:45AM – 10:15AM

Base Metals and Metal Preparation for Porcelain Enameling

“Energy Costs in Washer Systems,” Brian Rozdilsky, KMI Systems, Inc.

The presentation will review the specific topic of energy consumption in washer systems and discuss strategies to conserve.

“21st Century Cleaning Systems,” Ken Kaluzny, Coral Chemical Company

This paper will discuss advances in cleaner chemistries and their advantages in current P/E process lines.

“Using Control Systems to Go ‘Green’ While Saving You Money,” John O’Connor, ECC Controls of Illinois, Inc.

This talk will detail how electric, gas, and water usage can be reduced in the finishing area while increasing quality and production. Detailed examples of systems that have focused on going “GREEN” will be discussed including actual cost saving documentation. Attendees will have the tools necessary to go back to audit their finishing systems to see how they can go “GREEN” and reduce costs at the same time.

“Hydro Blast Cleaning,” Keith O’Hara, NLB USA

The paper will provide an overview of the potential use of high pressure cleaning technologies in the porcelain enameling industry.

1:00PM – 4:00PM

PEI Seminar – Application Equipment Operation and Maintenance

Mike Horton (KMI Systems, Inc.) – session chair
Ken Kreeger (Nordson Corporation)
Terry Conrad (Ferro Corporation)
Tony Mazzuca (Pemco Corporation)
Bob Anderson (EIC Group – North America)
Phil Flasher (ITW GEMA)

This seminar will address the general topic of porcelain enamel application equipment. Operating parameters and maintenance schedules will be discussed in detail.

1:00PM – 4:00PM

Tour of Lochinvar Corporation–Mt. Lebanon, TN

This plant tour is open to all Tech Forum attendees except for direct competitors; advance sign-up is required.

4:00PM

2009 PEI Tech Forum Concludes

“Porcelain Enamel for Concrete Reinforcing Steel,” Cullen Hackler, PEI

An overview of the progress PEI has made in the coating of a variety of types of steel for reinforcing concrete. Some P/E application techniques and potential markets are discussed.

9:50AM – 10:30AM

Environmental, Safety and Health

“Status of Environmental Regulation Changes Likely to Impact the Porcelain Enamel Industry,” Jack Waggener, URS Corporation

The paper will review the issues that are likely to have an impact on the porcelain enameling industry in the near future. Reach and Rohs will also be discussed.

“Update on Workplace Safety and Health Auditing in Manufacturing ,” Karen Ward, URS Corporation

This talk will discuss current topics in workplace safety auditing techniques with a focus on the porcelain enameling industry.

10:30AM – 10:45AM

Break

10:45AM – 11:45AM

PEI Committees and Programs

“PEI Technical Affairs Committee Activities,” Jeff Wright, Ferro Corporation

“ASTM B08.12 Subcommittee on Porcelain Enamel Activities,” Charles Baldwin, Ferro Corporation

“The State of the Institute,” Cullen Hackler, PEI

This paper will review the current status of PEI and discuss plans for the future.

11:45PM - 12:45PM

Lunch (for participants in the quality seminar and plant tour only)

10:15AM – 10:30AM

Break

10:30AM – 11:15AM

Porcelain Enamel Powder Systems

“Electrostatic P/E Powder Case Study,” Phil Flasher, ITW Gema

This presentation will discuss the experiences with an actual production P/E powder spray system.

“Dense Phase Pumping of P/E Powder – Part II,” Ken Kreeger, Nordson Corporation

This paper builds on the 2008 presentation and subsequent experiences with the dense phase pumping of P/E powder.

11:15AM – 12:00AM

Wet Porcelain Enamel Application

“Porcelain Enamel Spray Systems and Rheology,” Greg Budnick, Engineered Storage Products

This paper will review the experiences at ESP with the control of P/E slip rheology for wet spray systems.

“New Porcelain Enamel Application System,” Hans Juegen Thiele, EIC Group GmbH

New application system technologies will be discussed.

12:00PM – 1:00PM

Lunch

1:00PM – 2:00PM

A. I. Andrews Memorial Lecture

“Sustainability – More than a Buzz Word,” Dr. W. Mark McGinley, University of Louisville

This lecture will explore the sustainability issue as it relates to construction and materials in the 21st century with particular emphasis on the impact to manufacturers.

2:00PM – 3:00PM

Color and Decorations

“Decoration Colors and Processing Techniques for Porcelain Enamel Coatings” Todd Barson, Ferro Corporation

The paper will discuss new materials and methods for decoration on porcelain enamel products.

“Ceramic Decals,” Michael McCall, Heinrich Ceramic Decal, Inc.

A review of materials and processing for ceramic decals and the potential application for porcelain enameled products.

“Ceramic Ink Jet Printing,” Ron Manwiller, Enduring Images

This presentation reviews the overall ceramic ink jet printing technology and gives specific examples of state-of-the-art process equipment.

3:00PM – 3:15PM

Break

3:15PM – 4:45PM

Laboratory Investigations

“Using Engineering Statistics to Solve PE Plant Problems,” Charles Baldwin and Holger Evele, Ferro Corporation

This paper will discuss a variety of statistical tools available to plant engineers to help identify and solve plant problems.

“Glassing Process for High Efficiency Water Heaters,” Mike Wilczynski, A O Smith Corporation

The glassing process used in the manufacture of high efficiency Vertex coil water heaters is described, with the help of a 4 minute documentary video originally aired on the DIY cable channel in June of 2008.

“Preliminary Evaluations of Functional Coatings for Improved Chemical and Water Resistance,” Charles Baldwin and Lou Gazo, Ferro Corporation

This talk will explore the preliminary results of functional coatings to help improve the chemical and water resistance of porcelain enameled surfaces.

“Improving the Covering Power of Titanium White Cover Coats by Controlling Bubble Structure,” So Fukuda, Tokan Material Technology Co., Ltd.

The color stability, relative to the enamel layer thickness, can be improved by controlling the bubble structure in the enamel.

5:00PM–7:00PM

Suppliers’ Mart Reception

5:00PM–5:45PM

ASTM B08.12 Committee Meeting

Thursday, May 7, 2009

71st PEI Technical Forum, Equipment Seminar & Plant Tour

8:30AM - 8:45AM

Welcome and Introductions

Peter Vodak – Chairman
Mike Horton – Vice Chairman

8:45AM – 9:45AM

Porcelain Enamel Processing

“Firing Systems for Production Enamels and Decoration,”
Mike Horton, KMI Systems, Inc.

This talk will review the state-of-the-art in the firing of the base porcelain enamels and decoration on porcelain enamel by direct printing or decal technologies.

“The Who, What, Why, Where and When of Cast Iron Enameling,”
Steve Pew, Porcelain Industries, Inc.

The paper will provide an overview of proper cast iron chemistries, processes and enamels for successful production parts.