Powder Coating Institute

Fall 2011

PRODUCT SHOWCASE AT NAI COATING SHOW
SEE PAGE 32

PCI Quick Links > www.powdercoating.org

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- NAI Coating Show: *The* place to be for industrial coatings resources
- Powder Is Not a One-Trick Pony
- An Educated Workforce: Our Most Important Asset

Brett Ryden's Publisher's Letter
See page 47

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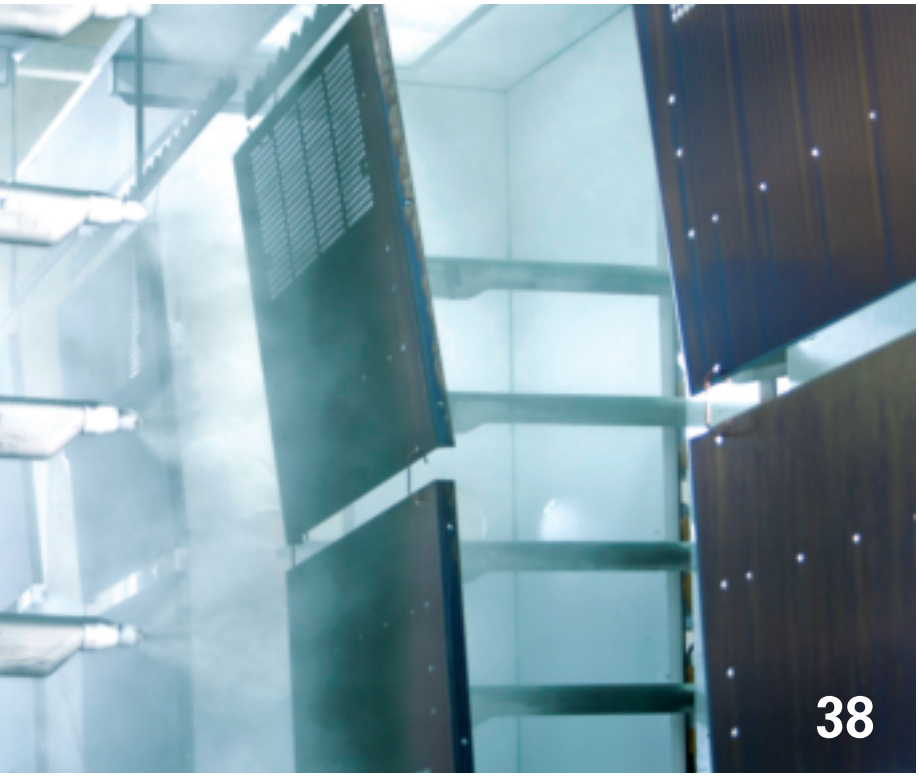
Powder Coated Tough

Volume 5, Number 3 ■ Fall 2011



COLUMNS

FEATURES

DEPARTMENTS

See our latest technologies at:

NAI Coating – Booth #*525*
Cincinnati, OH | Oct 4 – 6, 2011

SEMA – Booth #*10505*
Las Vegas, NV | Nov 1 – 4

FABTECH – Booth #*3925*
Chicago, IL | Nov 14 – 17

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As Busy As Ever

BY RODGER TALBERT

As I write this issue's column, it's the week of August 15, and for the first time since becoming PCI's executive director, it is the first full week I have been in my office—Monday through Friday. All that travel and hard work is paying off in spades, though. The Powder Coating Institute has as many new and exciting things going now as it has at any time in its 30-year history.

Our second North American Coatings Show in Cincinnati is right around the corner. You may even be reading this issue while attending the show. This year's show is building on the success of its inaugural year in Indianapolis last year with an exceptional technical program, exhibition, and other activities. The program is one of the best we, along with NACE, has ever constructed, with the very best speakers and topics we could find. For the full story on NAI—the only show in the country that is exclusively dedicated to coatings—turn to page 12.

In addition to preparing for NAI, PCI has been working on a new specification program, which will be launched at the show. Dubbed SOS, this program will allow a person to answer a series of questions about a coating project and construct a specification for the coating job. It is all electronic and very simple to use. It includes all of the details on the project and the methods needed to deliver a specific level of performance in a given application. It is a very exciting tool that can provide a clear road map on how to achieve a desired quality in any atmospheric setting over any metal substrate material. This program has been in the making for more than two years now, and we are proud to introduce it at the NAI Show.

For many years now, PCI has been producing a set of smoothness standards. The association has improved the packaging and the supply line for these panels and added a new set of standard panels for texture. These panels help to identify the specific level of smoothness or texture needed for a particular application.

We also have had some new developments in our highly successful technical department. The lab has added a new powder booth and greater capacity for testing and experimentation. Mike Wittenhagen has joined the technical staff as a service technician. He comes to us with more than 16 years of experience in the powder coating industry as a powder line supervisor, powder process facilitator, and service technician. Please help me in welcoming Mike to the PCI staff.

PCI has been as busy as ever, and I expect it to be another busy year. Stay tuned.

We are currently updating our very popular *Complete Finishers Handbook* and we will be showing off the new volume at the NAI show. With all the new advances in pretreatment, powder materials, booths and application equipment, it will be a major new contribution to the educational needs of the industry. We also are reviewing all of our Technical Briefs and Procedures and updating and adding to them.

We have expanded our certification plan and we now have Certified Coaters in Sweden and Mexico, as well as 11 in the United States. This program is growing in popularity and we expect to have many more companies signed on next year.

The marketing information supplied to members has grown and improved, as well. The PCI Global Statistics are more comprehensive than ever before and continue to grow as we connect with other nations and associations. We have a new market survey that has not yet been released, but that we expect will be a milestone accomplishment in helping our industry associates and members.

In the coming weeks, the Board of Directors will meet to review our current planning and formulate the next set of projects for the upcoming years. I expect it to be another busy year. Stay tuned.

Rodger Talbert
Executive Director, PCI

POWDER PERSPECTIVE

In Memoriam
Frank Koch, 1934-2011

Inspection Instrument Pioneer Frank Koch, president and founder of DeFelsko Corporation, died peacefully in the hospital on August 8, 2011 at the age of 77 with his loved ones by his side.

Born and raised in Germany, Koch was formally trained as a tool and die maker before emigrating in 1956. In the 1960s, his entrepreneurial spirit led him to Ogdensburg, N.Y., where he started several successful businesses, including DeFelsko Corporation.

It was his involvement with coating thickness and test instruments that most defined his career. Koch began importing and selling inspection instruments from Germany in the early 1960s and soon moved into manufacturing, beginning with the PosiTest mechanical pull-off gage and continuing with the ever-expanding PosiTector series of inspection instruments.

Frank's extraordinary combination of a bright mind, outgoing personality, dedication and tireless work ethic influenced the products he made and the business relationships he developed. He traveled the world developing a network of dealers. He forged relationships based on handshakes and on the strength of his character. He attributed much of his success to his loyal customers and dealers across the globe.

Under his leadership, DeFelsko pioneered many technologies, including hand-held ultrasonic coating thickness gages, auto switching ferrous/nonferrous coating thickness gages, and unique self-aligning adhesion testers.

Through his vision and the team he inspired, his company evolved from a one-man operation to a world leader in the design and production of quality, hand-held test equipment. Today, the company he started employs more than 50 people at its facility in Ogdensburg, N.Y., and houses research, manufacturing, sales, shipping and service departments.

Frank's son-in-law, David Beamish, has assumed the responsibilities as president of the company. Frank's daughter (and David's wife), Linda Koch Beamish, retains her role as 0vice president. Both David and Linda had the privilege of working with Frank for almost 25 years and together with the entire DeFelsko family are committed to carrying his legacy forward.

PPG Price Increase for Coil, Extrusion

Pittsburgh-based PPG Industries' industrial coatings business raisied its prices by an average of 8 to 12 percent on all coil and extrusion coating products in North America, effective Oct. 1 or as permissible by contract.

"The rate of raw material price inflation has been dramatic and sustained over the past 12 months, especially for titanium dioxide (TiO2) and resins used in paint products," says Richard Zoulek, PPG general manager, industrial coatings, U.S. and Canada. "PPG continues to implement aggressive cost-control measures throughout its operations, but these efforts alone cannot sufficiently offset the continued rapid rise in raw material costs, thus necessitating this price increase."

Sales representatives will communicate price increase details to their customers for all products affected. Visit www.ppg.com.

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News Bit

Casso-Solar Technologies LLC has relocated to 506 Airport Executive Park, Nanuet, NY 10954. Its sales of infrared (IR) heaters and equipment have been steadily increasing throughout 2011, an indicator of U.S. production-line growth for companies that use energy-saving (IR) heat processing for manufacturing. Casso-Solar Technologies can be reached at 845-354-2010.

Just for Fun

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C O N S T R U C T I O N I S N
I N T S R C I I L O L M G L S
I V M T O L E Y N I M P A S E
A E E R P S N V R F N O P R N
O Y T P S N U G N A R I T A E
N O A W N E R K I O T A N U L
E R L L A R U T L U C I R G A
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P O W D E R T R U A L L I O M

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Liquid	Metals	Military
Nozzles	OEMs	Oil
Powder	Process	Racks
Transportation	Utilities	Water

See the answers on page 50

CUSTOM COATERS CORNER

As of press time, the following companies are registered as Custom Coaters members:

COMPANY	STATE	WEBSITE
Tru-Line Manufacturing	AL	www.trulinemfg.com
Anderson Painting Co.	AZ	www.andersonpaintingco.com
Falcon Powder Coating	BC	www.falconpowdercoating.com
Applied Powdercoat, Inc.	CA	www.appliedpowder.com
DENMAC Industries, Inc.	CA	www.denmac-ind.com
Fusion Coatings, Inc.	CA	
IKON Powder Coating, Inc.	CA	www.ikonpowdercoating.com
Industrial Polishing Services, Inc.	CA	www.ipsfinishing.com
Inland Powder Coating	CA	www.inlandpowder.com
Olympic Powder Coating, Inc.	CA	www.olympicpowdercoating.com
Pacific Powder Coating, Inc.	CA	www.pacpowder.com
PRS Industries, Inc.	CA	www.prsmexico.com
Spectrum Paint and Powder Inc.	CA	www.spectrumpaintandpowder.com
Star Finishes Inc.	CA	www.starfinishes.com
C-W Elaborations	CO	
Powder Coating Specialties, Inc.	CO	www.powdercoatingspecialties.com
Structural Coatings, LLC	CO	
Absolute Powder Coating	FL	www.absolutepowdercoat.com
Architectural Finish Systems, Inc.	FL	www.floridapowdercoater.com
Excell Coatings, Inc.	FL	www.excellcoatings.com
Georgia Powder Coating Inc.	GA	www.georgiapowdercoating.com
Impulse Mfg. Inc.	GA	www.impulsemfg.com
Top Gun Powder Coating, LLC	GA	topgunpowdercoating.com
Sunset Powder Coating	HI	www.sunsetpowdercoating.com
Premier Powder Coating & Custom Fabrication, LLC	ID	www.ppccfab.com
Acme Finishing Company, Inc.	IL	www.acmefinishing.com
B.L. Downey Company LLC	IL	www.bldowney.com
KVF - Quad Corp.	IL	www.kvfquad.com
Micron Metal Finishing	IL	www.micronmetalfinishing.com
Palapa Coatings.	IL	www.palapacoatings.com
Progressive Coating	IL	www.progressive-coating.com
S & B Finishing	IL	www.finshing.com/sandb
Beacon Industries, Inc.	IN	www.beacon-industries.com
Carrara Industries, Inc.	IN	
Creative Coatings.	IN	www.creativecoatingsinc.com
Custom Equipment Design, Inc.	LA	www.cedpackaging.com
Martin Specialty Coatings, LLC	LA	www.martinsc.com
Diamond Custom Coatings.	MA	
Westside Finishing Co.	MA	www.wsfinish.com
Monarch Industrial Coatings	MB	
Kopacz Industrial Painting, Inc.	MI	
Magnum Powder Coating, Inc.	MI	www.magnumpowdercoating.com

Techno Coat, Inc.	MI	www.technocoat.com
Wright Coating Technologies	MI	www.wrightcoating.com
Associated Finishing, Inc.	MN	www.associatedfinishing.com
A-1 Paint, Powder Coating & Sandblasting. LLC	MO	
American Powder Coating, LLC.	MO	www.apcpowdercoating.com
Prodigal Son Coating	MO	www.prodigalsoncoating.com
Industrial Coating Solutions.	MT	www.icspowdercoat.com
Powder Coating of Montana LLP.	MT	www.powdercoatingofmontana.com
Cape Fear Custom Powder Coating	NC	www.cfcpowdercoating.com
Chief Industries, Inc.	NE	www.customproducts.chirfind.com
Midwest Powder Coating	NE	
Superior Powder Coating, Inc.	NJ	www.superiorpowder.com
ABQ Manufacturing Inc.	NM	www.abqmfg.com
Southwest Coating Inc.	NM	
Deloka, LLC	NY	www.deloka.com
Qualicoat, Inc.	NY	www.qualicoat.com
Trojan Powder Coating Co.	NY	www.trojanpowder.com
A Plus Powder Coaters, Inc.	OH	www.apluspowder.com
Duffee Finishing, Inc.	OH	www.duffeefinishing.com
DVUV	OH	www.dvuv.com
MetoKote Corporation	OH	www.metokote.com
Nation Coating Systems, Inc.	OH	www.nationcoatingsystmes.com
PJ's Fabricating Inc.	OH	www.pjsfab.com
Spectrum Metal Finishing, Inc.	OH	www.spectrummetal.com
Aerowood Powder Coating Ltd.	ON	
Automatic Coating, Ltd.	ON	www.automaticcoating.com
Colourific Coatings Ltd.	ON	www.colourificcoatings.com
Leland Industries Inc.	ON	www.lelandindustries.com
Pelletier's Auto Body & Powder Coating	ON	www.pelletiersautobody.com
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Tufcoat Propowder	OR.	www.tufcoat.com
Absolute Powder Coating, LLC	PA	www.absolutepowdercoating.com
Applied Powder & Coatings, Inc.	PA	www.appliedpowdercoatings.com
Dlubak Powder Coating	PA	www.dlubakpowdercoating.com
Gill Powder Coating	PA	www.gillpowder.com
Keener Coatings Inc.	PA	www.keenercoatings.com
Keystone Koating LLC.	PA	www.keystonekoating.com
Plas-Tech Coatings, Inc.	PA	www.plastechcoatings.com
Teknicote, Inc.	RI	www.teknicote.com
Carolinas Custom Clad, Inc.	SC	www.carolinascustomclad.com
Pro-Kote, LLC	TN	
3P Industries, Inc.	TX	www.3pindustries.com
Allied Powder Coating	TX	www.alliedpowder.com
3P Industries, Inc.	TX	www.3pindustries.com
Crosslink Powder Coating.	TX	www.crosslinktexas.com
Eco-Powder Coating (Light Lines, Inc.).	TX	
North Basin Coating, Inc.	TX	www.northbasincoating.com
PJ Services	TX	
Quality Product Finishing, Inc.	TX	www.qpfinishing.com
Advanced Powder Coating N.W. Inc.	WA.	www.advancedpowdercoatingnw.com
Northwest Powder Coatings, Inc.	WA	
All-Color Powder Coating, Inc.	WI	www.allcolorpowdercoating.com
Classic Coatings, Inc.	WI	www.classiccoatings.com
Kettle Moraine Coatings	WI	www.kettlemorainecoatings.com
Super Steel.	WI	www.supersteel.com
Tomcor Industries.	WI	norlen.com
Watry Industries LLC	WI	www.watry.com
Trinity Industries de Mexico, s de R.L. de C.V.		www.trinitymexico.com

Ask Joe Powder

Dear Joe,

I am an avid fan of the Orange County Choppers television show. This is the program about a shop that customizes motorcycles. Very often they use powder coatings as their coating of choice. They will send out parts to a job coater to be finished with an exotic looking powder coating. It seems that they regularly run into problems with the part dimensions after it has been coated causing them to send it back to be re-coated. What's the reason for this? Is there something inherent to powder coating that causes this?

Elizabeth

Dear Elizabeth,

I have only seen the show a couple times. If you cut through the contrived drama that this "reality" show stages, the actual work these guys do is quite impressive. It's pretty amazing seeing them transform a mundane bike into a work of art. Your observation regarding problems of the fit of powder coated parts is insightful. Here is what I think is happening: the parts are stripped of any old paint then cleaned and pretreated prior to the application of the selected powder coating. The parts are then electrostatically coated and cured in a convection oven. The goal of the job coater is to create the finest looking part – smooth as silk and completely defect-free. This objective is most easily achieved with a relatively thick coating of powder. Recall that unlike liquid paints, powder coatings can be applied at thick films without concern for sags, runs, drips or solvent popping defects. So it is fairly common for a custom coater to apply more powder than is needed.

Continued on page 48

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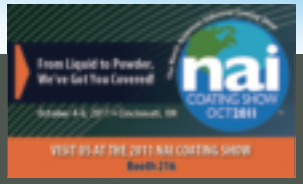

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NAI: The Only Show in 2011 Dedicated Solely to Coatings

Following the success of NAI 2010 in Indianapolis, The Powder Coating Institute (PCI) and NACE International hosts the 2011 North American Industrial (NAI) Coating Show in Cincinnati. This year's conference and exhibition is poised to be the largest event in North America dedicated exclusively to powder and liquid coating technologies.

What does The NAI Coating Show offer that no other coatings event can?

- Technical presentations by key representatives from the liquid and powder coating industry (see pages 17-18 for the program at a glance, and pages 19-30 for the full advance program).
- Session topics that include the prevention and reduction of coating failures, coating application methods, and business/marketing strategies.
- An audience of 1,800+ consisting of engineers, asset managers, coating contractors and applicators, quality control managers, and technical directors.
- Highest quality attendees that are there to make buying decisions on coating-related products and services.
- Coatings Career Zone, which will feature companies recruiting new employees as well as job listings/projects in the industrial coatings market.

VENUE

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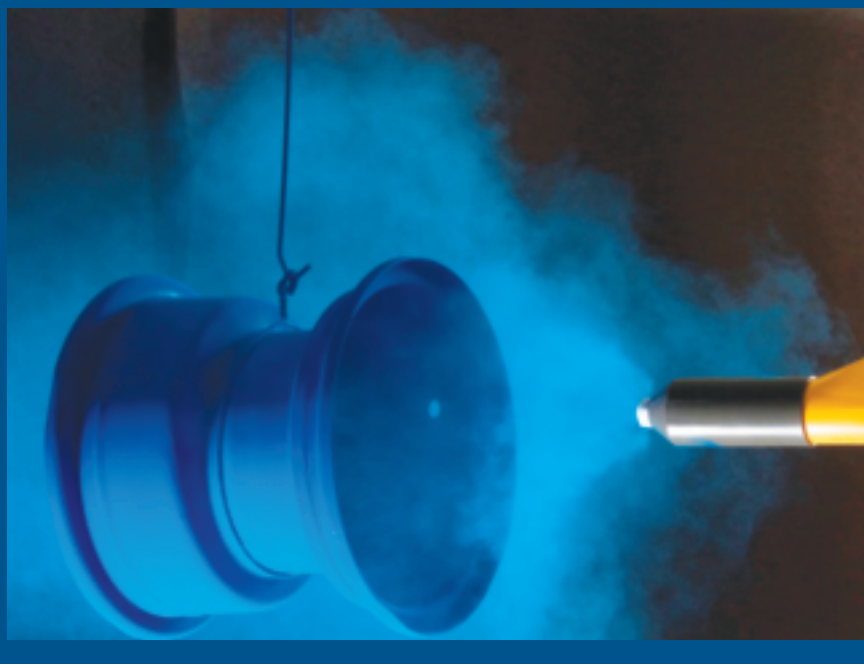
Cincinnati, OH 45202
Phone: 513-419-7327
www.duke-energycenter.com

SHOW DATES & HOURS

Technical Conference:
Tuesday, October 4: 1:00 PM - 5:00 PM
Wednesday, October 5: 8:00 AM - 11:00 AM; 1:00 PM - 3:00 PM
Thursday, October 6: 8:00 AM - 11:00 AM; 1:00 PM - 3:00 PM

Exhibition:
Tuesday, October 4: 5:00 PM - 7:00 PM (Grand Opening Reception on Exhibit Floor)
Wednesday, October 5: 11:00 AM - 5:00 PM
Thursday, October 6: 11:00 AM - 5:00 PM



NAI Grand Opening Reception

Tuesday, October 4: 5:00 PM - 7:00 PM

The Grand Opening Reception kicks off The 2011 NAI Coating Show as attendees and exhibitors interact over drinks and hors d'oeuvres on the exhibit floor. An excellent networking opportunity, attendees will get their first chance to meet with exhibiting companies in the coatings industry. Please note: No one under the age of 18 will be given access to the exhibit hall during the NAI Grand Opening Reception.

Coatings Career Zone

(sponsored by Thomas Brooke International)

Looking for opportunities in the coatings industry? If so, check out the new Coatings Career Zone. This dedicated area of the exhibit hall will feature companies recruiting new employees as well as job listings/projects in the industrial coatings market.

Product Introduction Stage

If you would like to hear about or see a demonstration on new products, then you won't want to miss the Product Introduction Stage, which will be located on the show floor. NAI exhibitors will be presenting product opportunities that will benefit coating professionals.

Carpenter Chemicals LC

Technical Help Zone

Join round table discussions in which attendees can participate in engaging, facilitated conversations exploring a range of topical questions and issues. Facilitated by industry experts, the round table topics include:

- Coatings Program Management
- Material Selection
- Fireproofing Considerations
- Inspection Needs
- Specifications
- Quality Control & Maintenance
- System Design
- Pretreatment
- Application
- Defects
- Energy Savings
- Impact of Formulation on Application and Performance
- Improved Formulation for Cost and Efficiency

Facilitators include:

David Hunter, Owner

Hunter Engineering Consulting Inc.

Fireproofing considerations; Questions answered on material selection, profile, and inspection needs

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Mike O'Brien, President
MARK 10 Resource Group Inc.
Premature coating failures; Discuss your paint failures and get the solutions you need

Terry Greenfield, Principal Consultant
CorroMetrics Services Inc.
Coatings program management; Answers for everything from specifications, to quality control, and maintenance

Rodger Talbert, Executive & Technical Director
The Powder Coating Institute
Discuss system design, pretreatment issues, application issues, defects, and energy savings

Kevin Biller, President/Owner
The Powder Coating Research Group
Discuss the impact of formulation on application and performance, as well as powder material options

Chuck Danick, President
Danick Specialties
Questions answered on formulation for cost and efficiency; Materials advice for specific jobs

Round table discussions will take place in the Lunch Area on Wednesday, October 5, from 3 to 4 p.m.

Custom Coater Round Table

Wednesday, October 5; 4 to 5 p.m.

Facilitated by Mike Cravens, Ikon Powder Coating Inc.

This round table discussion is dedicated to custom coaters learning from other custom coaters. This is the time you can share ideas, ask questions, present solutions, or let your peers help the group root at answers through our concepts. Topics may include New Technology, Ideas for Cost Reduction, Industry Trends, Energy Savings, Business Solutions and the Current State of the Powder Market. Be sure to come prepared with discussion topics!

Participants must be a registered attendee (conference or exhibit only) of The NAI Coating Show.

Virtual Painter's Competition (Sponsored by ColorMatch Industrial Coatings Solutions)

So you think coatings application is easy? Bring your team and try your skill during the Virtual Painter's Competition, where you will test your application techniques, including distance control, speed control, body position, and trigger control.

NAI Continues Its Support of Innovation: The Raw Materials Pavilion

By Kevin Biller

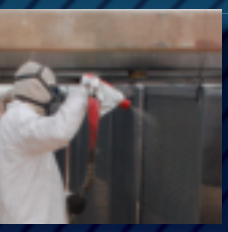
Once again, The North American Industrial Coating Show is demonstrating its support of new technology by encouraging and fostering the presence of raw material suppliers. In concert with this goal is the establishment of the Raw Materials Pavilion. The RM Pavilion is a concentration of exhibition floor space dedicated to exposition of innovation in raw materials technology. A number of raw material suppliers have already reserved booths at the exhibition including DSM Resins, EMS-Griltech, Evonik-Degussa, Lubrizol and The Powder Coating Research Group.

Unquestionably, the origin of much of the new coating technology emanates from the scientists working in raw materials laboratories. The presence of raw materials suppliers at the show provides the powder coating formulator as well as the OEM engineer and job coater the opportunity to discuss product and market needs with some of the primary influencers of new technology. Not only are resin and polymer manufacturers represented this year, but also crosslinker (curing agent) and additives technology houses will be exhibiting their latest innovations.

The inclusion of raw materials suppliers helps connect the technological "dots" all the way from resin and additives chemistry through powder coating formulation and ultimately to the end-user of the powder coating technology. This compendium of technologists provides the rare opportunity to engage every level of expertise to conquer the technical challenges facing the industrial coatings industry.

This year's event, The North American Industrial Coating Show (NAI) is being organized in conjunction with our partners, NACE International (National Association of Corrosion Engineers) and will be held from October 4th through the 6th at The Duke Energy Convention Center located in Cincinnati, Ohio. Please refer to www.thenaicoatingshow.com for exhibition and conference details. Whether you're a powder coating user, a serious formulator or just an avid techno-geek, I am certain that you will find the inclusion of raw material technology in the upcoming NAI Coatings Show a rewarding and valuable experience.

2012 DATES & LOCATION
America's Center
St. Louis, Mo.
October 9-11, 2012



The North American Industrial Coating Show

nai COATING SHOW OCT2011

October 4-6, 2011
Duke Energy Convention Center, Cincinnati, OH

From liquid to powder, we've got you covered!

What does The 2011 NAI Coating Show offer that no other coatings event can?

- Technical presentations by key representatives from the liquid and powder coating industry
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- Coatings Career Zone, which will feature companies recruiting new employees as well as job listings/projects in the industrial coatings market

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For more information, visit www.thenaicoatingshow.com.

TECHNICAL PROGRAM AT A GLANCE

TECHNICAL PROGRAM AT A GLANCE

TUESDAY, OCTOBER 4

TIME	POWDER COATINGS I	NACE TUTORIAL : HOW TO AVOID PREMATURE COATING FAILURES—SPONSORED BY *COATINGSPRO MAGAZINE*	COATING APPLICATION FORUM	INDUSTRIAL COATINGS I
1 p.m.	Introduction to Powder Coatings *Steve Houston, TCI*	How to Avoid Premature Coating Failures *Mike O'Brien* *MARK 10 Resource Group, Inc.*	Powder Application Small to Medium Volume *Ken Kreeger, Kreeger Consultants; Nick Liberto, Powder Coating Consultants*	Polyaspartic Coatings—Next Generation of Durable Shop-Applied and Site-Applied *Mike Jeffries, Bayer Material Science*
1:30 p.m.				Flow-Through Coating Process for E-Coating Unlimited Length Parts *Brent Schwartz, Metokote*
2 p.m.				
2:30 p.m.	Advanced Powder Coating *Rodger Talbert, PCI; Terry Giles, Henkel*		Powder Paint Applications for Architectural Fiberglass Profiles *Robert Langlois, Architectural Coating Solutions, Inc.*	Material Handling Options for Large Parts *Doug Oliphant, IntelliFinishing*
3 p.m.			Case Study: Speed, Accuracy, and Repeatability: A Case for Dense Phase Powder Technology *Ken Kreeger, Nordson*	
3:30 p.m.			Case Study: Upgrades, Not Just Guns Anymore *Chris Merritt, ITW Gema*	How to Make Plural Component Equipment Work for You *Kieran Snow, Rudd Co.*
4 p.m.	Case Study: In-Sourcing of Powder Coating Lives up to the Company's Name *Marty Vincens, Nordson; Ron Oliver, Rapid Manufacturing*		Porcelain Enamel: Applications & Basic Processing *Cullen Hackler, PEI*	Regulations Affecting Paint Shops *Rae Marie Mattis, R2M; Terry Hogan, International Paint*
4:30 p.m.	The Good, Better, Best of Powder Coating *John Cole, Parker Ionics*			

WEDNESDAY, OCTOBER 5

TIME	POWDER COATINGS II	BRING ON THE HEAT	"GOING GREEN" FORUM	THE NACE BRIDGE FORUM
8 a.m.	Innovations in Powder Coatings *Massimiliano Collicelli, Decoral System; Tim Brinner, Innotek; Larry Grimenstein, Nation Coating Systems*	Advancements in Corrosion Protection with Waterborne PVDCs for Metal Coatings *Steve Thompson, Lubrizol*	Regulatory Changes for Abrasive Blasting and What it Means to Go Green *Ted Valoria, Sponge-Jet, Inc.*	Corrosion Protection for Reinforcing Steel in Concrete Structures *Cullen Hackler, PEI*
8:30 a.m.		Introduction to Passive Fire Protection *David Hunter, Hunter Engineering Consulting*	Why "Green" Your Powder Coating Process *David Schimpff, DuBois Chemicals*	
9 a.m.			Green Coating Technology *John Owed, ITW Finishing Equipment Americas*	Maintenance Coating Practices *Mark Hudson, Sherwin-Williams*
9:30 a.m.		Corrosion Under Insulation *Vijay Datta, International Paint*	BPA Free Innovative Lining Technology for the Rail and Storage Markets *Mike Barbato, Hempel*	NTPEP Coatings Evaluation Program *Derrick Castle, Kentucky Transportation Cabinet*
10 a.m.	Masking: Silicone Magnetic Dots & The Rise of the Teflon Dot *Todd Schuh, EPSI*	Thermal Insulation Coatings to Eliminate Corrosion Under Insulation *Michael Stelmach, Mascoat*	Powder Coating Sustainability *Fred Light, DSM Powder Coating Resins; Phil Bechtold, AkzoNobel*	Case History: Mission Possible—The Week-end Shutdowns of the St. Louis Daniel Boone Bridge *Eric Nenninger, Dane McGraw and Josh Teddleton, Thomas Industrial Coatings*
10:45 a.m.		Thermal Spray vs. Liquid Coatings *Peter Bock, Hi-Temp Coatings*		Bridge Painting Specifications for the Ohio Department of Transportation *Jim Welter, P.E., Ohio Department of Transportation*
11 a.m.	The Art of Clean *Michael Thies, ITW Gema*			
11:30 a.m.–1 p.m.	LUNCH			

TECHNICAL PROGRAM AT A GLANCE

WEDNESDAY, OCTOBER 5 (CONTINUED)

TIME	POWDER COATINGS II (CONT.)	PIPELINE AND TANKS I	TRAINING & CERTIFICATION I	COATINGS ASSET MANAGEMENT FORUM
1 p.m.	Conversion of Liquid to Powder *John Carlson and Rich Horn, Nordson/Wirecrafters; Joseph Laubenthal, Wagner Systems; Loren Smeester and Arthur Gilbert; Nordson/Mercury Marine*	Field Applied Rehabilitation Coatings *Aida Garrity, Mears Group, Inc.*	The Importance of Hands-on Training *Frank Palmer, Frank Palmer Consultants, Inc.*	Coatings Asset Management Forum *Terry Greenfield, CorroMetrics Services. Inc.*
1:30 p.m.		Protective Coatings for Buried Pipe *Rand Matney, PPG*		
2 p.m.		Extend Storage Tank Inspection Intervals Using Release Prevention *Kelly Baker, Nilex*		
2:30 p.m.	Powder Coating Issues on Galvanized Substrates—A Consultant's Perspective *Tom Neal, KTA-Tator, Inc.*		Liquid Applicator Training *Rich Achterhof, Diamond Vogel*	
3 p.m.		Painting the Globe *Gregory "Chip" Stein Tank Industry Consultants*		

THURSDAY, OCTOBER 6

TIME	INSPECTION AND TESTING	INDUSTRIAL COATINGS II	TRAINING & CERTIFICATION II	UV TECHNOLOGY
8 a.m.	Powder Thickness Measurement and Paperless QA *David Beamish, DeFelsko*	The Advantages of Specialty Coatings *Greg Hardig, Unconventional Solutions*	Powder Coating Certifications *Rodger Talbert, PCI*	Advances in Factory Applied Coatings for Pipe and Tube *Paul Mills, Nutro Inc./Venjakob*
8:30 a.m.	Easy Inspection Form Creation for Dry Film Thickness and Related Test Measure *Paul Lomax, Fischer Technology*		The Value of NACE CIP (Coating Inspector Program) Certification *Terry Greenfield, Corrometrics and NACE Lead Instructor*	Corrosion Control with UV-Cured Glass Reinforced Plastic Laminates *Jean-Philippe Masson, SolarTech*
9 a.m.	Paperless QA: Standards, Methods, and Tools for Today's Manufacturing Environment *Mike Riley, Elcometer*	Optically Activated Pigments (OAP)—Insuring Successful Tank Lining Applications *Randy Kerans, Sherwin-Williams*	Qualifying Contractors for Industrial Coating Operations *Michael Damiano, SSPC*	Advances in UV Coatings for Military Use *Chris Geib, SAIC*
9:30 a.m.		Writing Successful Coating and Lining Specifications for Steel Water Reservoirs *Robert Boswell, Kleinfelder*	Job Site Safety *Pete Engelbert, Job Safety Associates*	Decision Making Process for Applying Military Coating *Gene Heitmeyer, Colonial Surface Solutions, Inc.*
10 a.m.	Cyclic Accelerated Corrosion Testing *Brian Smith, Assured Testing Services*	High-Performance Protective Immersion Coatings for Municipal Wastewater Collection and Treatment Systems *Vaughn O'Dea and Caleb Parker, Tnemec*		Polysiloxane Technology for the US Navy and the Marine Market *Steven Feldman, PPG*
10:30 a.m.	The Need for Third-Party Testing *Larry Burkholder, Digger Specialties*		Contracts, Specifications, and Warranties in the Painting Industry *Eugene Doerr III, REOD, LLC*	
11 a.m.	Third-Party Testing of Coating Materials *Sarah Olthof, CCC&L, Inc.*	Abrasives and their Properties *Pete Mitchell, GMA Garnet (USA) Corp*		
11:30a.m.–1 p.m.	**LUNCH**			

TIME	INDUSTRIAL COATINGS III	PIPELINE AND TANKS II	SURFACE PREPARATION FOR POWDER COATINGS	NACE TECHNICAL PRESENTATIONS
1 p.m.	Challenges Faced in the Coating of Carbon Steel Tanks in the Food and Beverage Industry *Rich Kind, Enerfab*	Pipeline Field Coatings *Frank Rampton, Trenton Corporation*	Laser & Mill Scale Pretreatment Solutions *Gary Nelson, Chemetall*	Newer and Proven Maintenance Coatings for Coal Prep Plants *Doug Klingensmith, Unconventional Solutions*
1:30 p.m.	Totally Integrated Process Control Systems Are No Longer a Dream *Bernd Werres, Metokote*	Marcellus and Utica Shale—Future Impact *Director David Mustine, Ohio Department of Natural Resources*	Pretreatment Innovations *Gary Nelson, Chemetall; Sergio Mancini, Bulk Chemicals; Bruce Dunham, DuBois Chemical; David Chalk, Galaxy Associates; David George, Henkel*	
2 p.m.	Concrete Coatings: Challenges and Solutions *John Durig, Sherwin-Williams Co.*			Laboratory Investigation of Coating System Failures *Valerie Sherbondy, KTA-Tator, Inc.*
2:30 p.m.	Corrosion Control by Protective Coatings For Transmission Structures and Equipment *Kendall Smith, Induron*	Pipeline Coatings used in Marcellus Shale *Chad C. Cuvo, The Liberty Group*		

TECHNICAL PROGRAM AT A GLANCE

TECHNICAL PROGRAM

Tuesday, October 4

POWDER COATINGS I

Introduction to Powder Coatings
1–2:30 p.m
Speaker: Steve Houston, TCI Powder Coatings

Looking for ways to improve your understanding of the powder coating operation? During this session, you will hear an introductory overview of the powder coating process that includes selecting the proper powder coating for your application, basic system design, oven options, and application of powder coatings, electrostatic theory, and recovery options.

Advanced Powder Coatings
2:30–4 p.m.
Speaker(s): Rodger Talbert, The Powder Coating Institute; Terry Giles, Henkel

This session is full of raw advanced powder coating information that will include an in-depth look at the proper powder selection; pretreatment options, both mechanical and chemical; application equipment including reclamation; drying and curing of powder coatings; quality control; and troubleshooting a powder coating operation.

Case Study: In-Sourcing of Powder Coating Lives up to the Company's Name
4–4:30 p.m.
Speaker(s): Marty Vincens, Nordson; Ron Oliver, Rapid Manufacturing

This presentation will discuss why and how Rapid Engineering, a precision machining and fabrication shop located in Powhatan, Virginia, brought powder coating in-house, not only saving cost, improving quality, and reducing delivery time, but in doing so also adding a complete, new powder coating business to their overall capabilities.

The Good, Better, Best of Powder Coating
4:30–5p.m.
Speaker: John Cole, Parker Ionics

It's no secret that you can powder coat substrates with significantly less than optimal conditions, but at what price? Is it really less expensive in the long run to cut corners on powder coating operations? Where can you cut corners and where should you never cut corners? This presentation will cover the simple fundamentals of proper powder coating from a practical perspective while addressing the best practices of the industry along with the less-than-best practices used by many powder coaters today. Anyone who is starting up a powder coating operation, from the small entrepreneur to the largest corporation, will benefit from this presentation.

NACE INTERNATIONAL TUTORIAL: HOW TO AVOID PREMATURE COATING FAILURES

Sponsored by CoatingsPro Magazine

How to Avoid Premature Coating Failures
1–5 p.m.
Speaker: Mike O'Brien, MARK 10 Resource Group, Inc.

Premature paint failures continue to cost specifiers, plant owners, contractors, and paint manufacturers lots of time and money and cause irreparable damage to customer relationships. This tutorial is filled with numerous examples and pictures of actual coating failures on steel and concrete, providing participants with practical knowledge to reduce or avoid premature coating failures.

COATING APPLICATION FORUM

Powder Application Small to Medium Volume
1–2:30 p.m.
Speaker(s): Ken Kreeger, Kreeger Consultants; Nick Liberto, Powder Coating Consultants

Making equipment selections for small to mid-volume powder coating operations can be difficult and confusing as the equipment features and designs can be diverse and numerous. Successful powder coating operations "right-size" their equipment selections to meet defined production, flexibility, and quality goals to ensure their capital funds are spent wisely. During this session, you will receive a complete overview of all the equipment options available as well as understand how capital and operational costs can be affected.

Powder Paint Applications for Architectural Fiberglass Profiles
2:30–3 p.m.
Speaker: Robert Langlois, Architectural Coating Solutions, Inc.

This session will provide a detailed discussion of the application of powder paint to architectural fiberglass profiles. Hear about the economics of application versus traditional liquid paint, the benefits of using powder versus liquid, aesthetics, as well as testing and warranty of powder on fiberglass.

Case Study: Speed, Accuracy, and Repeatability: A Case for Dense Phase Powder Technology
3–3:30 p.m.
Speaker: Jeff Dailidas, Nordson

Hear why dense phase powder technology, from bulk transfer, to gun delivery, to the applied coating, can be the best solution when an application requires high production throughput, exceptional accuracy, high

efficiency, and repeatable results. Some application examples, along with the financial justification and payback analysis, will provide strong proof that if the application calls for it, this combination of technologies and equipment can consistently deliver the performance that customers require.

Case Study: Upgrades, Not Just Guns Anymore
3:30– 4 p.m.
Speaker: Chris Merritt, ITW Gema

Color change has become such a critical part of any finishing line. Most powder coating operations are looking for ways to add flexibility and still get throughput. But for many companies they have a significant investment in existing equipment. This presentation will focus on a case study example of a large manufacturing corporation who made an investment to replace older powder coating equipment and realized significant rewards. Information will be shared from this real world situation that includes a cost justification for investing in color change powder coating equipment.

Porcelain Enamel: Applications & Basic Processing
4–5 p.m.
Speaker: Cullen Hackler, Porcelain Enamel Institute

This session will review today's many uses and applications for porcelain enamel as an engineered coating and material. With the chemical fusion at high temperature of the glass coating to the metal part, porcelain enamel becomes a new, unique material. You will hear about the fundamental raw materials, part design criteria, metal preparation, coating application technologies, and firing/curing systems.

INDUSTRIAL COATINGS I

Polyaspartic Coatings—Next Generation of Durable Shop Applied and Site Applied
1–1:30 p.m.
Speaker: Mike Jeffries, Bayer Material Science

Polyaspartic coatings are a unique chemistry based upon the reaction between an aliphatic polyisocycnate and a polyaspartic ester. This chemistry has been successfully used in corrosion prevention applications for several years, and offers the ability to formulate ultra-high solids coatings. In this session, you will learn how fast ambient cure, along with high film builds, offer the applicator the ability to improve overall productivity.

Flow-Through Coating Process for E-Coating Unlimited Length Parts
1:30–2:30 p.m.
Speaker: Brent Schwartz, Metokote

Coating extremely long parts using immersion-based coating processes such as e-coat often leaves coating equipment design engineers wrestling with a system requiring large process tanks and excessive floor space. This session will demonstrate a viable production method for the application of corrosion protective e-coat onto unlimited length parts by employing an "open-ended" tank conveyor, and a process tank that is shorter than the actual length of the part being processed through it, while maintaining necessary tank fluid levels, and producing a consistent film build in a previously unattainable compact package.

Material Handling Options for Large Parts
2:30–3:30 p.m.
Speaker: Doug Oliphant, IntelliFinishing

Having trouble finding a conveyor and automation system that can handle your heavy and oversized parts efficiently? Learn about new technologies that have been developed and patented to specifically address the issues of heavy and large parts manufacturers.

Large Structures, High Standards, Big Liquid Coating System Improvements
3:30–4 p.m.
Speaker: Brad Syrowski, Nordson

Kawneer North America, part of Alcoa's Building and Construction Systems business, is the leading manufacturer of entrances, framing systems, windows, and curtain wall systems for a myriad of high-, mid-, and low-rise buildings such as stadiums and sports facilities, office buildings, schools and universities, retail construction, and health care. From thermal efficiency and sustainability to hurricane and blast resistance, Kawneer products are designed to optimize both aesthetics and performance. With goals for cost savings, increased capacity, better penetration into Faraday areas, and improved overall finish quality, Kawneer recently undertook a big capital investment to upgrade its liquid finishing equipment. This session will discuss how the new liquid spray systems "came up big" in helping Kawneer achieve its goals.

Regulations Affecting Paint Shops
4–5 p.m.
Speaker(s): Rae Marie Mattis, R2M; Terry Hogan, International Paint

Dealing with federal, state, and regional regulations affects not only application, but changes in technology at the manufacturing level to deal with compliance and the benefits of partnering between owners and coatings manufacturers.

TECHNICAL PROGRAM

Wednesday, October 5

POWDER COATINGS II

Innovations in Powder Coating
8–10 a.m.
Speaker(s): Massimiliano Collicelli, Decoral Systems; Tim Brinner, Innotek; Larry Grimenstein, Nation Coating Systems

DECORAL™ is a trade name for a unique product that can be used to apply special finishes to metal profiles, sheets, and 3D accessories using powder coating, faithfully reproducing the natural grain of various types of wood, marble veining, granite, and custom design. The DECORAL™ system enables the simultaneous combination of a strong protective coating and an innovative decoration. The product has been analyzed and tested by certifying associations that have issued the AAMA 2603 and AAMA 2604, and we are now working on the AAMA 2605. With up to 15 years warranty for outdoor application, the DECORAL™ system can be used to decorate windows, doors, entry doors, railing, decking, shelves, shutters, furniture, store fixtures, and many other different products. *(Massimiliano Collicelli)*

Copolymer polyethylene thermoplastic powder coatings provide performance properties unattainable with conventional thermoset powder coatings in areas including UV/weathering protection, corrosion resistance, impact resistance, chemical resistance, and many more. This presentation will touch on all major thermoplastic powder coatings, examining their physical and performance properties and including examples of pertinent applications. *(Tim Brinner)*

Third, you will hear a training course on what thermal spray is and what the applications are. The course is broken down into four areas: terminology, materials, processes, and applications. There probably is not an application where this type of coating is not being looked at. *(Larry Grimenstein)*

Masking: Silicone Magnetic Dots & the Rise of the Teflon Dot
10–11 a.m.
Speaker(s): Todd Schuh and Chad Cushman, EPSI

The silicone magnetic dot was created to give the benefit of a tape dot with less time needed to accurately place it in position and the ability to remove it faster. Reusability is a plus, as well as the improved ability to control the coating burr around the mask area and provide a much smoother transition line. and the ability to be altered somewhat to fit a particular application. These are very strong rare earth magnets that will handle the temperatures without a problem. *(Todd Schuh)*

The Teflon™ magnetic dot was first developed for the powder coat and plating industries in 2008, as a high temp masking solution for no paint zones, around taped holes. The innovative design of the Teflon™ magnetic dot drastically increased finish quality/consistency, decreased overall masking application/removal times, and provided a low volume/no tooling required solution (Teflon™ is easily machined). *(Chad Cushman)*

The Art of Clean
11–11:30 a.m.
Speaker: Michael Thies, ITW Gema

This presentation will look at new automation technology designed to facilitate contamination-free color change. By automating powder management, the risk of contamination may be reduced. Often customers push operators to speed change over time. Overlooking the steps necessary to clean the system for color change can be a costly experience. This seminar will focus on reducing these errors and introduce new technology to safely speed up the color change cycle time.

"BRING ON THE HEAT" FORUM

Advancements in Corrosion Protection with Waterborne PVDCs for Metal Coatings
8–8:30 a.m.
Speaker: Steve Thompson, Lubrizol

As environmental concerns increase and technological advancements enable higher performance, the use of waterborne systems is growing. Waterborne polyvinylidene chloride acrylic emulsions (PVDCs) are ideal for preventing corrosion and rust on metal surfaces, and they can be formulated with low VOC content for environmental compliance. The barrier properties of PVDC films are equal to or better than chlorinated rubber films of equal thickness, and unlike acrylics, they have extremely low moisture vapor permeability to aid in rust prevention. The chlorine content in PVDCs provides fire retardant properties for use in high-performance applications.

Advancements in waterborne systems allow the formulation of longer-life PVDCs with proven results in corrosion resistance and adhesion to a variety of metal substrates. Additionally, these formulations exhibit increased stability, humidity resistance, and overall performance.

Introduction to Passive Fire Protection
8:30–9:30 a.m.
Speaker: David Hunter, Hunter Engineering Consulting

In this session, topics will include the purpose of passive fire protection (PFP) systems, types of PFP systems, design and maintenance considerations for PFP, and economic considerations of fireproofing.

TECHNICAL PROGRAM

Corrosion Under Insulation
9:30–10 a.m.
Speaker: Vijay Datta, International Paint

Corrosion under insulation (CUI) is an insidious and costly problem that has bedeviled industry at large and the protective coatings industry in particular. An overview of a coating journey is presented, one of trauma to transcendence, where inadequate coating performance of coating types two decades ago have now transcended into present day technologies and strategies that are extremely effective in addressing CUI. Titanium modified inorganic copolymer (TMIC) technology is described for both insulated and non-insulated applications systems, where TMIC is used in either a stand–alone mode or in conjunction with thermal spray aluminum (TSA). Laboratory testing is outlined that compares and contrasts the anticorrosive and temperature resistance performance profiles of today's most advanced coatings engineered to combat CUI. Insulated pipe spools exposed to temperatures up to 400°C were exposed to laboratory controlled wet-dry cyclic regimes in order to mimic typical cyclic CUI in-service environments. Case histories are provided for both new construction and maintenance jobs.

Thermal Insulation Coatings to Eliminate Corrosion Under Insulation
10–10:45 a.m.
Speaker: Michael Stelmach, Mascoat

Thermal insulation coatings (TICs) have been eliminating corrosion under insulation (CUI) since the early 1990s. TICs can give an industrial facility the insulation value needed for personnel protection, energy retention, anti-condensation, radiant heat gain, and many more benefits. Due to the application of TICs as a liquid applied product the installation on complex geometry is simple compared to rigid conventional insulation. Since TICs are bonded directly to the substrate that they are insulating, the owner not only has total visual inspectability but also has eliminated the risk of CUI.

Thermal Spray vs. Liquid Coatings
10:45–11:30 a.m.
Speaker: Peter Bock, Hi-Temp Coatings

Thermal spray aluminum and liquid applied coatings are proven corrosion-fighting technologies, both of which provide long-term protection against corrosion for exposed service and under insulation. Each system has unique advantages and limitations in performance, surface preparation requirements, application, maintenance, and cost. Users, specifiers, and inspectors should be aware of the differences between the two systems, and should tailor projects and specifications to take advantage of the most appropriate system for their particular project or specification.

"GOING GREEN" FORUM

Regulatory Changes for Abrasive Blasting and What It Means to Go Green
8–8:30 a.m.
Speaker: Ted Valoria, Sponge-Jet, Inc.

With the transition from low volatile organic compound (VOC) coatings to NO VOC coatings well underway, the next regulatory frontier will likely focus on surface preparation. Be prepared before regulations limit your efficiency, productivity, and profitability. Learn the latest regulatory and green trends related to abrasive blasting and where various technologies may help.

Why "Green" Your Powder Coating Process
8:30–9 a.m.
Speaker: David Schimpff, DuBois Chemicals

Phosphate restrictions, VOCs, HAPs, the impact of downstream water treatment...each of these and many more factors impact what we can use for cleaning and processing parts. In this session, we will discuss the current and future states of "green" cleaning, the EPA's Design for the Environment safer product labeling program, and methods for developing and accessing the efficacy of "green" cleaning solutions. This session will conclude with a discussion on the application of low temperature "green" technologies, phosphate replacement strategies, and validation of cleaning.

Green Coating Technology
9–9:30 a.m.
Speaker: John Owed, ITW Finishing Equipment Americas

Today more than ever, mass media wants to ensure that we are aware of the environmental footprint that we are creating. Would you buy a car without knowing what kind of gas mileage it gets or if it meets EPA mandates for emissions? Would you remodel your house without incorporating energy-saving appliances, windows, or lighting? Why not apply this same through process to your finishing system? Whether you have an existing system or are planning on building a new one, you should be aware of all of the tools available to you for efficient operation. This session will identify atomization, application, control, and curing technology that will allow you to operate a "greener" finishing system. By implementing these suggestions, you will be able to reduce coating material and energy usage. Reductions in these areas will reduce your operating cost and improve productivity and profitability.

BPA-Free Innovative Lining Technology for the Rail and Storage Markets
9:30–10 a.m.
Speaker: Mike Barbato, Hempel

Technical features of a new FDA approved lining and the importance of choosing the right coating to protect food and beverage from Bisphenol-A contamination.

Powder Coating Sustainability
10–11 a.m.
Speaker: Fred Light, DSM Powder Coating Resins

For many years, users have enjoyed the economic and technical benefits of powder coatings. Very early, it was intuitively understood that powder coatings are the coating system with a relatively low carbon footprint. This was, however, never supported by a comprehensive analysis taking into account all elements involved in the coating process. This session will present a Carbon Footprint Study for industrial coatings on metal substrates. The outcomes of the carbon footprint calculations for the various coating systems have been validated by an independent third party. The outcomes confirm that, among the most widely used industrial coatings, waterborne, and powder coatings produce the lowest carbon footprint.

Going High-Tech Green: Roof Coatings
11–11:30 a.m.
Speaker: Thomas Peterson, Hyperseal, Inc.

This presentation will discuss all aspects of Elastomeric Roof Coatings. Speaker owns a California Roofing Contracting business and has installed on several large projects including the Anaheim Hilton Hotel and Administration buildings at Hearst Castle. He will discuss what constitutes a successful install, useful design characteristics of the membrane coating and long-term wear issues.

NACE BRIDGE FORUM

Corrosion Protection for Reinforcing Steel in Concrete Structures
8–9 a.m.
Speaker: Cullen Hackler, Porcelain Enamel Institute

Reactive vitreous enamel (porcelain enamel) coatings are being successfully used to perform dual functions in steel-reinforced concrete structures. The coating provides both a barrier to corrosion and an increase in the bond between the steel and concrete. In this session, you will hear about laboratory testing data, and actual field prototypes, and explore numerous applications for this new technology. Additionally, you will learn about the potential for improved lifetimes for reinforcing steel in concrete structures, particularly in saltwater environments, and the relevance to corrosion engineers.

Maintenance Coating Practices
9–9:30 a.m.
Speaker: Mark Hudson, Sherwin-Williams

This presentation deals with maintenance painting practices for previously painted steel bridges. Practices discussed are overcoat painting and spot or zone painting. Also discussed are concrete structures and maintenance coating for protection from salt intrusion and graffiti.

NTPEP Coatings Evaluation Program
9:30 –10 a.m.
Speaker: Derrick Castle, Kentucky Transportation Cabinet

This presentation will introduce the audience to the nationally standardized performance-based evaluation process for structural steel coatings systems developed and implemented through AASHTO/NTPEP. The presentation will highlight testing performed for initial evaluation of structural steel coating systems and quality assurance testing of production materials.

Case History: Mission Possible— The Week-End Shutdowns of the St. Louis Daniel Boone Bridge
10–10:45 a.m.
Speaker(s): Eric Nenninger, Dane McGraw; Josh Teddleton, Thomas Industrial Coatings

With many obstacles to overcome, including two years of traffic being affected, seven weekend shutdowns of a major highway, and a major league baseball team schedule to work around, find how this team coordinated a "Mission Possible."

Bridge Painting Specifications for the Ohio Department of Transportation
10:45–11:30 a.m.
Speaker: Jim Welter, P.E., Ohio Department of Transportation

This presentation will focus on some recent changes in the specifications and the process involved in the use of some new products, methods, and systems. for the corrosion protection of structural steel in Ohio.

POWDER COATING II (CONT'D)

Case Studies: Conversion Liquid to Powder
1–2:30 p.m.
Speaker(s): John Carlson and Rich Horn, Nordson/ WireCrafters; Loren Smeester and Arthur Gilbert, Nordson/ Mercury Marine; Joseph Laubenthal, Wagner Systems

Wired for Success
In order to meet the demands of its customers for a more durable finish, improved product appearance, and achieve its other numerous goals such as improving process control, reducing cost, increasing productivity,

and shortening delivery times, WireCrafters, LLC, located in Louisville, Kentucky, a manufacturer of wire partition products for security and safety enclosures, storage lockers, and related products, upgraded its existing liquid painting operation to a fast-color-change powder coating system. This presentation will discuss the challenges, technologies utilized, and the benefits powder coating has brought them. *(John Carlson & Rich Horn)*

Powder and Water "Do" Mix—
Mercury Marine Converts to Powder
The Mercury Marine case study will detail a plant consolidation and conversion from liquid to powder coating. The demanding finish quality and performance requirements will be discussed, as well as how the company achieved its major improvement goals of coating process and material standardization, overall cost reduction, increased production "up time," and minimized process variations. *(Loren Smeester & Arthur Gilbert)*

Liquid to Powder Conversion in a Lean Manufacturing Environment
Woods Equipment Company, headquartered in Oregon, Illinois, manufactures top-quality attachments and genuine replacement parts for the agricultural, landscape, and light construction markets. In 2010, Woods Equipment Company converted two waterborne finishing processes to powder coating. This presentation will review the objectives when converting from liquid to powder in a lean manufacturing environment. *(Joseph Laubenthal)*

Powder Coating Issues on Galvanized Substrates—
A Consultant's Perspective
2:30-3:30 p.m.
Speaker: Tom Neal, KTA-Tator, Inc.

The powder coating of galvanized surfaces can be problematic from several aspects. The natural weathering of the galvanizing creates oxides that have to be removed. Failure to properly remove these oxides may cause adhesion problems. Failure to prepare the surface properly may also cause adhesion problems. Because the surface to be coated is baked at a high temperature, the other major potential problem is pin holing or blisters in the powder coating due to "volatiles" coming off during the bake process. Hence the prebake procedure is very important. The quality of the galvanizing is important in that it has to be smooth and well adhered. This paper will discuss several case histories illustrative of the potential problems.

PIPELINE AND TANKS I

Field Applied Rehabilitation Coatings
1–1:30 p.m.
Speaker: Aida Garrity, Mears Group, Inc.

This presentation will discuss some insights into the technical aspects of aging pipeline coating systems. All coatings will eventually experience aging and degradation. If mechanisms are due to the inevitable result of aging, then the coating system selection, surface preparation, and application were suitable for the intended service. If premature problems develop, the cause might be due to several factors that include raw materials, proper system selection, improper surface preparation, coating application, and poor or inadequate inspection. Examples and actual problem-solving case studies will be presented based on past pipeline historical industry experience. Recommendations will be provided for establishing minimum requirements to ensure proper application and performance of field-applied pipeline coatings to guarantee their long-term performance.

Protective Coatings for Buried Pipe
1:30–2 p.m.
Speaker: Rand Matney, PPG

This presentation will discuss the details regarding the selection, application, and inspection of protective external and internal coatings for buried pipe. Topics include field application issues, field joint coatings, and common testing and inspection criteria.

Extend Storage Tank Inspection Intervals
Using Release Prevention
2–3 p.m.
Speaker: Kelly Baker, Nilex

The American Petroleum Institute's code for Repair and Modification of Aboveground Storage Tanks, API 653, now allows for the extension of initial and subsequent inspection intervals in aboveground storage tanks when various safeguards are used. One of the safeguards is a release prevent barrier (RPB). API 650 defines an RPB as a barrier which may be under or in the bottom of a tank, and which provides for containment and leak detection. Loose fit liners meet this definition and, in many cases, are the least expensive means of providing the safeguards allowed by API 653 to extend the run length of a storage tank. This presentation will outline the safeguards defined by API 653 and describe alternative applications of loose fit bag liners that can serve as an RPB. Advantages and disadvantages of each will be discussed and compared to other containment alternatives.

Painting the Globe
3–3:30 p.m.
Speaker: Gregory "Chip" Stein, P.E., Tank Industry Consultants

In 1980, noted muralist Mr. Peter Freudenberg, created on one of the most unique water storage structures in the United States, the Washington Suburban Sanitary Commission's Earthoid on the campus of Montgomery College in Germantown, Maryland. The structure, painted to resemble the astronauts' bird's eye view of the earth, is not only a fully functional 2,000,000 gallon water storage tank, but also a civic landmark for area residents. The structure was heralded as a ground-breaking project in the water storage, protective coatings, and steel plate structures industries.

After years of excellent service life, the coating on the tank exterior is in need of rehabilitation and plans are underway for the refurbishment of the tank, to include repainting the tank to again resemble a globe. This presentation will take the audience through this unique re-painting project from the perspective of the original design engineer and the engineers responsible for periodic coating evaluations during the service life of the existing coatings, and the design of the new coating system.

TRAINING AND CERTIFICATION I

The Importance of Hands-On Training
1–2:30 p.m.
Speaker: Frank Palmer, Frank Palmer Consultants, Inc.

The application of a coating or the preparation of a surface have changed a great deal in the last decade, and they will continue to change. In our industry, new surface preparation standards have been developed to meet the industry's requirements. Environmental concerns and coating systems have also driven these changes. In addition, the introduction of new types of spray systems all require skilled trade persons. These skills cannot be achieved by reading a specification or product data sheet. No individual can obtain hands-on skills during a lecture. I believe this presentation will provide you with information on how practical skills can be improved with a few easy steps.

Liquid Applicator Training
2:30–3:30 p.m.
Speaker: Rick Achterhof, Diamond Vogel

This session will review industrial coating issues along with safety and application tips. Troubleshooting common problems provides a basic understanding of causes and solutions to those problems.

COATING ASSET MANAGEMENT

Coating Asset Management Forum
1–3 p.m.
Speaker: Terry Greenfield, CorroMetrics Services Inc.

This forum will discuss Protective Coatings Programs – An Owner's Perspective and Forum of Coatings Asset Management. To achieve the economic value of the installed coating, the designed life-cycle must be realized. This goal can be achieved through an effective coatings management program. This forum will be comprised of coatings industry end user/owners that have implemented programs to better manage their protective coatings assets. Each panel member will give a short presentation about their program, sharing successes and challenges. Content will include maintenance philosophies, condition surveys, and data management systems. An open forum discussion will follow with these industry markets represented: Marine, Aerospace (Kennedy Space Center), Offshore Oil and Gas, Pipeline, and Refineries.

Thursday, October 6

INSPECTION AND TESTING

Powder Thickness Measurement and Paperless QA
8–8:30 a.m.
Speaker: David Beamish, DeFelsko

Powder thickness can be measured before or after curing. Hand-held instruments taking non-destructive readings directly on cured powder are described in ASTM Standards D7091 and D7378. To reduce waste and avoid rework, applicators can measure powder in the pre-cured, pre-gelled state using height measurement tools or non-contact ultrasonic testers. New instruments have built-in flash memory (mass storage) and the ability to wirelessly upload measurement data to the cloud for archiving and sharing. The trend in paperless QA is toward simple, Web-based models that help powder coaters study trends, reduce costs, and provide documentation showing their ability to meet specifications.

Easy Inspection Form Creation for Dry Film Thickness and Related Test Measure
8:30–9 a.m.
Speaker: Paul Lomax, Fischer Technology

Test measurements including dry film thickness often require documentation output to a specific report format. This format may change based on the type of coating and/or standard that is being used to guide the measurement sequence. Requirements may also include a paperless report of the inspection results. In this presentation, you

will hear solutions that help assist all coating professionals. Whether involved with anodizing, automotive coatings, galvanized, and/or powder coating, this presentation discusses solutions that reduce the likelihood of errors taking place.

Paperless QA: Standards, Methods, and Tools for Today's Manufacturing Environment
9–10 a.m.
Speaker: Mike Riley, Elcometer

This presentation will discuss the standards, methods, tools, and software available for the collection and analysis of QA data as it relates to protective coating applications in the manufacturing environment. Discussion points will include best practices from some of the leading industrial applicators of powder coatings. Topics include analysis of the correlation of uncured and cured dry film thickness; gloss and DOI measurement; oven temperature recording and optimization; environmental monitoring and the effect of variations in specific humidity changes in the application area; and new test methods in the evaluation of coating performance under physical stress.

Cyclic Accelerated Corrosion Testing
10–10:30 a.m.
Speaker: Brian Smith, Assured Testing Services

The expectations and demands on the corrosion protection of coatings and coated components are increasing continuously, and have resulted in the evolution of coating materials and improvements in their performance. Methods of evaluating the corrosion protection of coatings and pretreatments have evolved, with significant new test methods introduced in the past 20 years. This session explains what coating formulators, manufacturers, and applicators need to know about the current state of corrosion performance testing, and what cyclic accelerated corrosion testing means for them, their products, and their customers.

The Need for Third Party Testing
10:30–11 a.m.
Speaker: Larry Burkholder, Digger Specialties

Digger Specialties is the only company nationwide that is a certified PCI 4000 A2 (AAMA 2604) and A3 (AAMA 2605) powder coater. Although they use an excellent powder supplier, Digger Specialties chooses to do all testing independently from the supplier. They have experienced a few instances where the supplied powder was *not* meeting an AAMA specification, which was caught by our independent third party testing. This presentation will discuss PCI 4000 and AAMA specifications, and how they provide differentiation from others within the industry.

Third-Party Testing of Coating Materials
11–11:30 a.m.
Speaker: Sarah Olthof, CCC&L, Inc. a GPI company

This presentation will describe some of the common testing performed on coatings by third-party laboratories. This virtual tour of a third party lab will describe how the testing is performed and some of the critical variables which can affect the final test results.

INDUSTRIAL COATINGS II

The Advantages of Specialty Coatings
8–9 a.m.
Speaker: Greg Hardig, Unconventional Solutions

In this session, you will learn the importance of specialty coatings as companies are being asked to do more with less: less manpower, less prep time, less cure time, and less down time. Specialty coatings offer high performance and extraordinary service conditions. Unfortunately, many companies use "cookie cutter" specs and expect strategic results. Learn how specialty coatings, with well-equipped support from a NACE Certified Coating Inspector—Level 3, will yield superior corrosion protection.

Optically Activated Pigments (OAP)—Insuring Successful Tank Lining Applications
9–9:30 a.m.
Speaker: Randy Kerans, Sherwin-Williams

This presentation will introduce the benefits of optically activated pigments (OAP) in tank-lining applications. This would include the ability to immediately identify and repair holidays in the coating film, detect insufficient film thickness of the coating, and document the lower inspection costs compared to traditional tank-lining systems. It will explain what OAP technology is, how it works, and how it ensures proper coating applications. There will be a demonstration on how this pigment will fluoresce when exposed to violet LED lighting. Also addressed will be relevant standards, inspection practices, and documented projects.

Writing Successful Coating and Lining Specifications for Steel Water Reservoirs
9:30–10 a.m.
Speaker: Robert Boswell, Kleinfelder

This presentation will discuss collaborative efforts between the reservoir owner, the engineer, the author/specifier, and the coating supplier in order for the author/specifier to write successful coating and lining specifications for steel water reservoirs. It will also discuss the importance for the group, including the inspector and the contractor, to read and understand the specifications for coating and lining

specifications for steel water reservoirs.

High Performance Protective Immersion Coatings for Municipal Wastewater Collection and Treatment Systems
10–11 a.m.
Speakers: Vaughn O'Dea and Caleb Parker, Tnemec

Municipal sewerage systems have precipitously become more corrosive due to increased biogenic sulfide corrosion activity. This corrosion mechanism is a bacterially mediated process of forming hydrogen sulfide gas and the subsequent biological conversion to sulfuric acid that attacks concrete, steel, and ductile iron within wastewater collection and treatment systems. This presentation will explain the biogenic sulfide corrosion process, review sewer gas composition and its effects on protective coatings, and to inform the audience on how to properly select and protect severe wastewater infrastructure using advanced high-performance immersion coatings.

Abrasives and their Properties
11-11:30 a.m.
Speaker: Pete Mitchell, GMA Garnet (USA) Corp

This presentation will include discussions on the advantages of use abrasives, surface finish – difference between surface profile and class of blast, choosing the right abrasive for the job, Mohs Scale of Hardness, soft abrasive verses hard abrasives, cost-effective blast cleaning, and optimum blasting conditions..

TRAINING AND CERTIFICATION II

Powder Coating Certifications
8–8:30 a.m.
Speaker: Rodger Talbert, PCI

In this session, you will learn about The Powder Coating Institute's 3000 and 4000 certification programs. The certification programs were developed in an effort to support the entire marketplace. If you are a custom coater or OEM and are interested in a way to differentiate yourself in the marketplace as well as use a certification program that is not only focused on your business today, but incorporates ways to improve your practices and processes for tomorrow, then this program is for you.

The Value of NACE CIP (Coating Inspector Program) Certification
8:30–9 a.m.
Speaker: Terry Greenfield, CorroMetrics; NACE Lead Instructor

The NACE International CIP Certification presents exceptional value to both the certification holder and the end user of inspection services. This presentation will explore the aspects of value to both parties and industry in general.

Qualifying Contractors for Industrial Coating Operations
9–9:30 a.m.
Speaker: Michael Damiano, SSPC

This presentation is designed to describe tools that both public and private facility owners should consider using when evaluating the qualifications of coating contractors for their painting projects!

Questions to be answered include but are not limited to:

1. What to say in a specification to ensure that the painting contractor who shows up at the job site is the one you expected.
2. What contractor and personnel certifications should be considered? What are the advantages and limitations of requiring certification programs?
3. What submittals should owners require from contractors prior to beginning work and after work begins?
4. How does an owner effectively evaluate a contractor's safety & environmental compliance program?
5. What's the value of considering the contractor's work history?

In addition to prequalifying tools, the presentation will also explore the importance of the content of the coating specification in indirectly selecting the type of contractor the owner may want for its project. That is, how can an owner design the specification in order to attract already "pre-qualified" contractors who intend to perform conforming work?

Job Site Safety
9:30–10:30 a.m.
Speaker: Pete Engelbert, Job Safety Associates

Job site safety is a required part of most bids. A Site Specific Safety and Health Plan is also becoming more prevalent. Submittal after submittal is now required even for routine coatings projects. But advice or instruction on how to put these together are few and far between. This presentation will give specific instruction and framework for putting together this information. Developing a site respirator plan, determining the correct hazard analysis for the job and other ESH skills are discussed. When finished, the attendee will have a solid leg to stand on in complying with safety section specifications on coatings projects.

Contracts, Specifications, and Warranties in the Painting Industry
10:30–11:30 a.m.
Speaker: Eugene Doerr III, REOD, LLC

Have you ever wondered how a specification you put together might be legally interpreted? Have you ever

wondered just how well covered you are by that 10-year warranty? If you have ever considered these questions or any others related to contracts, specifications, or warranties, this is your opportunity to get answers from a practicing attorney without it being billable!

UV TECHNOLOGY

Advances in Factory Applied Coatings for Pipe and Tube
8–8:30 a.m.
Speaker: Paul Mills, Nutro Inc./Venjakob

This presentation explores advances in both equipment and chemistry that have enabled factory applied liquid coatings for pipe and tube to be applied more rapidly and economically while achieving or surpassing industry requirements.

These innovations include the use of high-energy induction preheating for waterborne coatings, new reclaim systems for waterborne and UV coating technologies, as well as advances in UV curing chemistry and process equipment. UV processing provides the added advantage of rapid cure in a small system footprint. Product can be handled within seconds of coating.

This presentation will give examples from recent installations and quantify the cost, process, and environmental benefits of these innovations.

Corrosion Control with UV-Cured Glass Reinforced Plastic Laminates
8:30–9 a.m.
Speaker: Jean-Philippe Mason, SolarTech

Glass-reinforced plastics (GRP) offer excellent chemical and mechanical resistance properties but are not designed, in their traditional form, to be applied on site in a fast and effective manner. This drawback is overcome by combining GRP technology with a UV-curing mechanism to create a coating system that is easy to apply and cure and that provides effective corrosion control solutions.

This presentation reviews the chemistry, properties, and application methods of UV-cured GRP laminates as well as examples of application areas. Commercially available UV-cured GRP laminates consist of glass reinforcement impregnated with a resin matrix containing a UV-sensitive catalyst. Those laminates come in the form of pliable sheets, ready to be applied by hand and cured without the need for mixing or heating. Exposure to UV light, from the sun or a lamp, triggers and sustains a cross-linking reaction that cures the laminate to a hard and fully resistant material. Overlapped onto itself, the laminate forms a chemical bond upon curing to create a virtually seamless system. This makes UV-cured GRP laminates an ideal jacketing system to prevent corrosion under insulation (CUI). Examples of jacketing applications on straight pipe and more complex geometries will be described. Excellent adhesion to other substrates opens the door to a vast range of applications. Examples of its use as a coating on pipelines, on pipeline weld joints, and on concrete will be reviewed.

Advances in UV Coatings for Military Use
9–9:30 a.m.
Speaker: Chris Geib, SAIC

The Department of Defense (DoD) spends from $10–$20 billion per year fighting corrosion. Many of the coatings they use are solvent-based coatings that contain hazardous materials like hexavalent chromium with health and safety risks and environmental consequences. They are also very expensive materials and they generate a lot of hazardous waste.

Recent advances in ultraviolet (UV) cure technology provide high-performance coatings that have no hexavalent chromium or diisocyanates. They can be cured in seconds and they are excellent for temperature-sensitive alloys of aluminum, magnesium, titanium, and advanced composites. Both liquid and powder UV cure coatings can be formulated in virtually any color used by the military, and in high gloss (>90 @ 60°F) and full matte finishes (<5 @ 60°F). Exceptional chemical resistance of these newer UV cured coatings creates opportunities for UV cure coatings in the chemical agent resistant coating (CARC) arena.

This presentation will report on these latest advances in UV cure coatings and the use of robotics to cure them. Included will be a discussion of the applications, current status of the programs underway, and a look at the future of UV cure within the Department of Defense.

MARINE AND MILITARY COATINGS

Decision-Making Process for Applying Military Coating
9:30–10 a.m.
Speaker: Gene Heitmeyer, Colonial Surface Solutions, Inc.

Cleaning processes, whether it is via blasting or chemical means and then applying a protective coating, requires another level of skill sets when initiating involvement with the military coating business. This presentation provides a basic profile to help in making a decision if becoming involved with the military coating process is good for your company. Its purpose is to enhance one's thought process and learning techniques regarding some of the key considerations before taking the leap into working with

the military business world.

Some of the main objectives are to provide a thought process concerning marketing, capital equipment needs, environmental awareness, and personnel enhanced requirements and training, quality systems, production process variations, and specification and documentation requirements.

Polysiloxane Technology for the US Navy & Marine Market
10–11 a.m.
Speaker: Steven Feldman, PPG

This presentation will discuss the benefits of polysiloxane technology versus current coatings technology in the marine marketplace:
- Low VOC
- No isocynates
- Low solar absorbing
- Lifecycle cost reduction
- Indefinite recoat
- Superior color and gloss retention
- No odor

INDUSTRIAL COATINGS III

Challenges Faced in the Coating of Carbon Steel Tanks in the Food and Beverage Industry
1–1:30 p.m.
Speaker: Steve Ries, Enerfab

This presentation will cover challenges and pitfalls faced in working in the dynamic environment of the food processing industry.

Totally Integrated Process Control Systems Are No Longer A Dream
1:30–2 p.m.
Speaker: Bernd Werres, Metokote

Does a globally integrated process monitoring and control system that is self-monitoring and self-correcting sound like science fiction? It's not. This session demonstrates a real world system that has early warning systems and visual management, with displays, indicators, and alarms, as well as "at-a-glance" status and trends.

Concrete Coatings: Challenges and Solutions
2–2:30 p.m.
Speaker: John Durig, Sherwin-Williams, Co.

This presentation will address the uniqueness of concrete as a substrate which define challenges for application of protective coatings. Service conditions which indicate a need for coatings will also be identified. Several newer coatings technologies designed specifically to address the challenges concrete substrates present will be discussed.

Corrosion Control by Protective Coatings for Transmission Structures and Equipment
2:30–3 p.m.
Speaker: Kendall Smith, Induron Protective Coatings

Corrosion protection of above and below-grade structures and equipment within the electric T&D (transmission and distribution) industry has distinct requirements and limitations that produce the need for maximum wetting, surface-tolerant one-coat systems for weathered galvanized steel as well as the overcoating of previously painted carbon steel structures and equipment, flow-coating of difficult to reach areas, and painting energized structures. Types of coatings specified will be compared and discussed.

PIPELINE AND TANKS II

Pipeline Field Coatings
1–1:30 p.m.
Speaker: Frank Rampton, Trenton Corporation

This presentation provides an overview of field-applied coatings used on pipelines. The categories of coatings described are: epoxies and polyurethanes, polyolefin-based coatings (various tapes and shrink sleeves), tar-based thermoplastics (bitumen and mastics), and wax.
The application of the various coating systems is described.

Marcellus and Utica Shale—Future Impacts
1:30–2:30 p.m.
Speaker: Director David Mustine, The Ohio Department of Natural Resources

Utica and Marcellus shales hold the potential to significantly improve Ohio's economic outlook through job creation and expansion of its manufacturing sector. Learn more about Ohio's strong oil and gas regulatory program and the actions being taken at the state and local levels to ensure the safety and success of this opportunity.

Pipeline Coatings Used in Marcellus Shale
2:30-3 p.m.
Speaker: Chad C. Cuvo, The Liberty Group

A detailed talk on the pipeline coatings that are being utilized in the Marcellus Shale play. This presentation will highlight their features/benefits, as well as drawbacks.

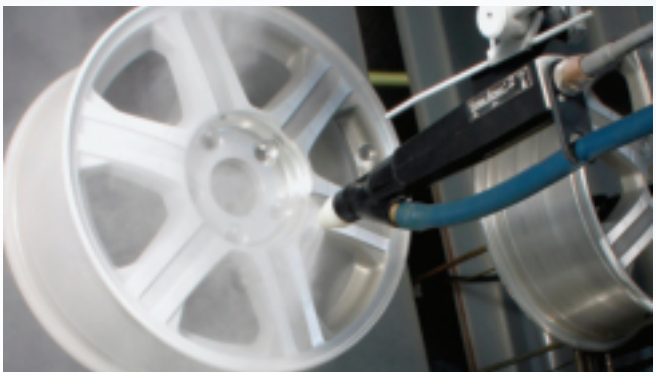
SURFACE PREPREPARATION FOR POWDER COATINGS

Laser & Mill Scale Pretreatment Solutions
1–1:30 p.m.
Speaker: Gary Nelson, Chemetall

The use of lasers to cut steel has grown tremendously in recent years, with manufacturers eager to take advantage of their many benefits. The use of hot rolled steel, especially in the heavy equipment industry, is common, especially with manufacturers looking to reduce costs. Painting over the oxide scale on either of these surfaces leads to poor paint performance. This session will explain what these oxides are, as well as both mechanical and chemical means of removal, for improved paint performance.

Pretreatment Innovations
1:30–3 p.m.
Speaker(s): Gary Nelson, Chemetall; Sergio Mancini, Bulk Chemicals; Bruce Dunham, DuBois Chemical; David Chalk, Galaxy Associates; David George, Henkel

This program will provide a comprehensive review of the options available for surface treatment of parts prior to coating. It will include an introduction and overview of the history and benefits of pretreatment; a thorough review of substrates, soils, the purpose of surface treatment; and treatment options for quality. This program will include an in-depth review of the new pretreatment technologies and transitional metal treatments and the process features that are necessary to successfully use these exciting new products.



NACE TECHNICAL PRESENTATIONS

Newer and Proven Maintenance Coatings for Coal Prep Plants
1–2 p.m.
Speaker: Doug Klingensmith, Unconventional Solutions

Did you know ceramics are second only to diamonds when it comes to hardness? Ceramic-enhanced coatings offer excellent protection against abrasion and corrosion for chutes and hoppers. In fact, technical ceramics are used to make bio-medical implants, tiles used in the Space Shuttle program, gas burner nozzles, ballistic protection, nuclear fuel uranium oxide pellets, jet engine turbine blades, and missile nose cones. We invite you to learn about the latest technology in ceramic rebuilding and maintenance coatings.

We will also debunk several myths about ceramic coatings, such as the "high" cost. While ceramic coatings cost more per unit than that of a polymer or more basic metal, ceramic coatings outperform traditional coatings in terms of longer product life, less frequent maintenance, increased performance, and less wear and noise over time.

In addition, there are newer and proven chemical lining systems and metal repair compounds. These cold vulcanizing repair coatings, and compounds alleviate the frustration and concern associated with heat vulcanizing, burning permits, explosion hazards, EPA fines, safety issues of grit blasting, and rising labor costs.

Many of today's epoxy mastics or flexible acrylics extend intervals between coatings as long, or longer, than traditional three-coat systems requiring a white or near white metal blast. Don't miss this opportunity to learn about proven coating technologies designed for minimal surface preparation without jeopardizing longevity.

Laboratory Investigation of Coating System Failures
2–3 p.m.
Speaker: Valerie Sherbondy, KTA-Tator, Inc.

Coating system failures can be extremely challenging. When a large-scale coating failure occurs, an investigation into the cause often ensues. This session will review project documents, a site investigation, a laboratory investigation, and the development of a professional opinion regarding the failure mechanism and a recommendation for repair. It will also focus on traditional and new, innovative forensic laboratory analyses that can be brought to bear on coating failures.

THE EXHIBITION

The NAI Coating Show is the only event dedicated 100 percent to industrial and protective coatings. The audience attending this event is the highest quality in the coatings industry. More than 80 percent of those who attended The 2010 NAI Coating Show were decision makers or had purchasing influence.

Decision makers from these industries will attend The 2011 NAI Coating Show:

- Coatings and Linings
- Custom Coaters
- Water and Utilities
- Automotive and Transportation
- General Metals
- Oil & Gas Production
- Process Industries
- Agricultural and Construction
- Military/Department of Defense
- Appliance

Contact your sales representative today!

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THE 2011 NAI COATING SHOW EXHIBITORS

As of September 10, 2011

Exhibitor	Booth No.
A&B Deburring Company	1218
ACT Test Panels	532
AkzoNobel Inc.	517
Alabama Washer & Oven	816
Argon Masking Corp.	828
Assured Testing Services	1224
Beckman Coulter, Inc.	413
Belzona	1235
Bulk Chemicals	412
C.A. Picard	1119
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Vitracoat	925
Wagner Systems	711

PRODUCT SHOWCASE

The Product Showcase is the premier venue for discovering new products in the industrial coatings industry. In the Product Showcase, which is right on the show floor, you can view new product innovations and can obtain product details, manufacturer's name, and booth location all in one area. Here we have highlighted some of what you will see (or maybe that you missed!) at the NAI Show in Cincy this year.

Company provides turnkey finishing with its modular conveyance and control technology, which allows individual sections of the conveyor to move independently in both speed and direction throughout the entire system. This allows each process area; be it wash, coatings, cure or delivery, to act independent of the rest of the system for the ultimate system flexibility to obtain the highest quality and throughput. From design through installation and commissioning, IntelliFinishing provides a turnkey installation that is focused on quality and efficiency. Our patented system includes conveyance, washers, ovens, controls, coating systems, and platforms.

IntelliFinishing
Booth 825

The new EasyTrack2 system measures the exact temperature of your product as it passes through the cure oven, giving you the power to understand, control and maximize the potential of your coating process and provide a system to make your profiling task as easy as possible.

Datapaq Inc.
Booth 310

The new OptiFlex®2 puts the world's most advanced manual powder coating technology in the palm of your hand. Spray all powders with ease, coat complex geometries with outstanding efficiency and quality and do it all in the most challenging environments - anywhere on the planet.

Gema
Booth 416

This new thermoplastic powder coating, formulated for primerless metal adhesion, is applied by electrostatic spray or fluid bed application. With a lower melting point and low cure temperature requirements, DuPont™ Abcite® by Thermoclad is field repairable, scratch- and water-resistant and highly resistant to chemicals and corrosion.

DuPont
IndustrialCoatingSolutions
Booth 817

The new PosiTector Dew Point Meter measures and records climatic

parameters including: Relative humidity, air temperature, surface temperature, dew point temperature and the difference between surface and dew point temperatures.

DeFelsko
Booth 725

TGM4700 AirCoat Manual Gun is a light gun, weighing only 19.3 oz. It is available in 160 and 250 bar versions and has a new tool-free removable filter.

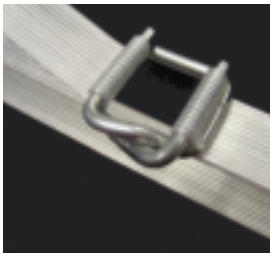
Wagner Systems Inc.
Booth 711

Dualscope MPORr is a pocket-size instrument with PC-interface for convenient and fast coating thickness measurement on virtually all metals.

Fischer Technology
Booth 811

ProMix 2KE installs in minutes to pneumatic agitators, enabling a consistent agitator output speed as drum levels change. The controller prevents over-agitation of shear sensitive materials and reduces air consumption.

Graco Inc.
Booth 937



Cordstrap polyester strapping solutions provide safe and cost-effective ways to secure your cargo and prevent it from damage. The strapping is designed to be as strong as steel, safe for users and receivers, cost effec-

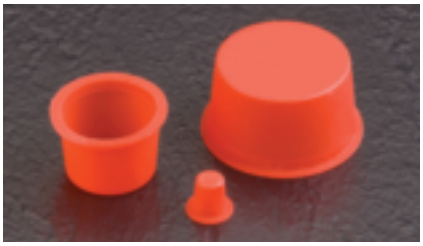
PRODUCT SHOWCASE

tive, does not damage your products, shock absorbent, high retained tension, high system strengths, printable with your company name and logo, tested and certified by Germanischer Lloyd, light-weight and portable, chemical resistant, will not rust or rot, weather resistant, re-tensionable.

Cordstrap
Booth 733

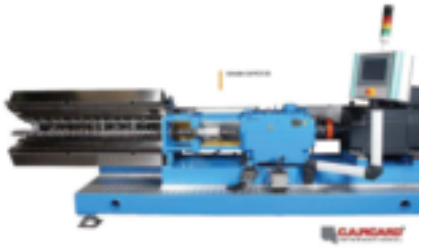
Walk-in and truck ovens are designed and optimized for your various coating and curing needs.

Precision Quincy Inc.
Booth 912



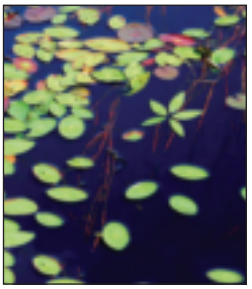
New TS Series Tapered Caps/Plugs offer all the versatility of traditional tapers with add resilience of silicone. Also offered are "shower caps," economical covers to protect a wide range of applications during finishing operations.

Caplugs
Booth 510



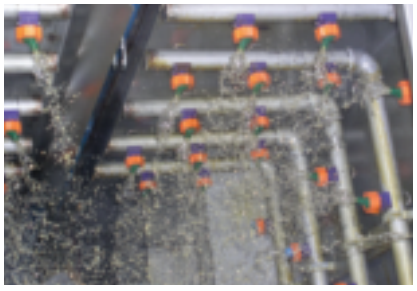
Company offers twin-screw extruders and cooling belts for powder production. Replacement wear parts (elements, barrels, shafts) for other OEMs also will be displayed.

C.A. Picard
Booth 1119



OMEGA MP-5165 is an organic sulfide-based metal precipitant, utilized for the reduction of metal ions from industrial wastewater and process water applications.

Coventya Inc.
Booth 111



The company will have on display their Toran product, a one-step, no-heat, no-water, no-waste pretreatment for metal.

Carpenter Chemicals LC
Booth 1111

The company will have on display a complete line of powder and liquid spraying systems, including its Encore LT manual powder coating spray gun (pictured), the Encore Modular Control System, and the Trilogy Electrostatic Spray Gun for Liquid Applications.

Nordson Corporation
Booth 525

The company will offer its Angle Pivot System products that adapt to existing conveyors to increase coating line capacity by up to 50 percent. Also on display will be its Heavy Duty Mighty Hooks, available in three styles and five standard lengths ranging from 0.312" dia. to 1.00" dia. material.

Mighty Hook
Booth 210

The Powder Coating Research Group, which provides cutting edge materials and process solutions for coating users and producers, will be available to answer any questions you may have.

The Powder Coating Research Group
Booth 410

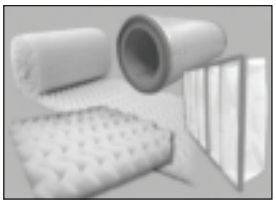
Fabrication and coatings are offered. Powder coated or liquid painted production parts, racks, and plaques or weldment for general industries will be on display.

Colonial Surface Solutions
Booth 125

Midwest Finishing manufactures energy-efficient ovens and washers that have a unique modular design, which allows for significant efficiencies in powder coating equipment production and installation. The company serves its customers from engineering through

system startup by providing custom design, engineering, fabrication and installation of complete state-of-the-art finishing equipment.

Midwest Finishing Systems
Booth 725

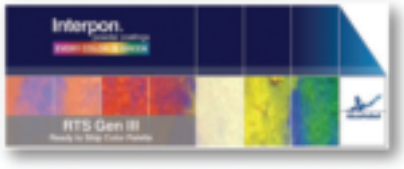


GFS Wave Filters are versatile single-stage filtration media made for paint spray booths.

Global Finishing Solutions
Booth 719

Koch's Modular Powder Coating Environmental Room has a unique pre-fabricated modular panel construction that features interlocking tongue-and-groove seams to eliminate the need for separate connectors and joiners, making the Koch system quick and easy to assemble

George Koch Sons
Booth 1110



The company will have on display its RTS Gen III, the most comprehensive stock offering of powder coatings.

AkzoNobel Powder Coatings
Booth 517

Peridium® Powder Coatings with Agion Technology
Sciessent, creator of naturally occurring silver-based antimicrobial brand Agion® has partnered with Diamond Vogel to offer the Peridium® Powder Coatings line. Agion® technology inhibits the growth and propagation of bacteria on the surface of a product. These coatings are suitable for healthcare furnishings, fitness equipment, furniture fixtures, and many other industrial applications.

Diamond Vogel
Booth 224

Where are you going to learn about the latest innovations in powder coating technology?

I know I'm going to the Powder Coating Summit next June.

PC POWDER COATING Summit

A New Era is Dawning

Powder Coated Tough Magazine and The Powder Coating Research Group are collaborating to bring you the latest innovation in powder coating technology in a workshop/symposium. Details will be available at the upcoming NAI Coating Show!

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PCR Powder Coating Research Group

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PRODUCT SHOWCASE

Cast zinc and aluminum blast cleaning media is designed to be long-lasting low dust media for removing coatings from fixtures, jigs, and rejected parts.

Transmet Corporation
Booth 433

HitSol HSC829 is a highly aggressive, water-based, coatings remover. It is designed for use on wet paints, primers, powder coatings, and on some inks.

Hit Solutions
Booth 1011

NANO-SIL 5100 is a metal pretreatment conversion coating, for powder, liquid, and electrocoat paints. NANO-SIL 5100 chemically forms a nano-structured film that includes organosilicone compounds on ferrous, aluminum, zinc and stainless steel alloys at bath temperatures of 70°F to 120°F.

Madison Chemical
Booth 1129

PowderMax's 52" one-piece filter construction is easier to install, quicker to replace, requires less maintenance and eliminates misalignment. It also offers more filtration area, a better seal, potentially longer service life and lower pressure drop resulting in lower operating costs.

TDC Filter
Booth 721

The company is introducing a superdurable polyester resin for use in powder coatings that imparts excellent corrosion resistance to powder coatings. The resin was designed to be crosslinked with B-Hydroxyalkylamide (HAA).

DSM Coating Resins
Booth 332

On display will be an aluminum window corner decorated with Decoral wood grain using powder coating.

Decoral System USA Corp.
Booth 930

FINISHING FINESSE

A quest for the ultimate in quality and collaboration leads this cutting-edge job shop to the latest in powder color-change technology.

EDITED BY SHARON SPIELMAN

Photo courtesy Nordson Corporation

As one of Ohio's largest powder and ceramic coating facilities, Aesthetic Finishers caters to industries that require the highest quality finishes. Here, appliance parts are being sprayed, just one job of the hundreds of parts that are coated each week in more than 50 different colors, at the shop's 80,000 sq.-ft. facility.

As one of Ohio's largest powder and ceramic coating facilities, Aesthetic Finishers serves the needs of commercial clients—such as those in the automotive and appliance industries—as well as individual hot rod and motor sports clients. This keeps their 80,000 sq. ft. Piqua, Ohio, facility and its 40 employees busy each week, coating hundreds of different parts in more than 50 colors.

Aesthetic Finishers caters to industries that require the highest quality finishes. "We pride ourselves on the reputation we've earned as a Class A finisher," explains Bill Coomer, the facility's owner. "Our customers demand it. We can't send an Easter-egg looking stove back to one of our appliance customers, for example. Moreover, any color contamination costs us money in rejects and wasted powder. For a while, it seemed the only way to meet the high standards of Aesthetic Finishers' customers was to spray to waste instead of reclaiming powder."

Coomer turned to his colleagues at Nordson Corporation, Amherst, Ohio, for a better solution. In the process of developing the latest in its line of powder coating technologies, Nordson and Coomer worked together to devise a booth that would mini-

Photo courtesy Nordson Corporation

Aesthetic Finishers' owner, Bill Coomer, worked with Nordson Corporation to devise a booth that would minimize powder contamination while accommodating a range of profiles. The result of their collaboration was a customized version of the ColorMax®3 Powder Spray System, which is designed to maximize powder usage and nearly eliminate any contamination.

mize powder contamination while accommodating a range of profiles.

The result of their collaboration was a customized version of the ColorMax®3 Powder Spray System.

Designed to maximize powder usage and nearly eliminate any contamination, the booth is constructed of proprietary Apogee® canopy material, which offers the least amount of powder attraction. As a result, it enhances color change speed, eliminates the possibility of cross-contamination of colors, and makes routine booth cleaning quick and easy. Other features that maximize powder efficiency include:

- Open-face canopy design and external manual touch-up stations improve first-pass transfer efficiency with full and easy access around part.
- Airwash that moves powder to the extraction plenum and ensures mini-

mum powder-in-process.

- Single plenum along the center of the booth to reduce contamination risk.
- Access doors in cyclone and plenum for easy cleaning.
- HDLV® (high-density powder, low-volume air) pumping technology continuously returns powder back to feed center for peak recovery efficiency.

"We were in the early stages of developing this product when Bill contacted us," says Frank Mohar, Nordson Powder Systems Specialist. "We spent a couple of months at his facility, working together to improve the 'if you can see it, then you can clean it' concept. His input was instrumental in achieving our proof of concept and color-change testing capabilities with the system in the Nordson customer test laboratory."

The booth designed for Aesthetic Finishers incorporates a specialized dual cyclone design to maximize cleaning efficiency. To accommodate more challenging powders used at Aesthetic Finishers, the cyclone's lower section can be unclamped and rolled out, allowing the cyclone's entire interior surface to be eas-

Photo courtesy Nordson Corporation

Aesthetic Finishers' newest powder coating system has a dual cyclone design that maximizes cleaning efficiency. To accommodate more challenging powders, the cyclone's lower section can be unclamped and rolled out, allowing the cyclone's entire interior surface to be easily wiped clean from top to bottom.

ily wiped clean from top to bottom. While the majority of powders come clean without this extra step, the breakaway version for tough powders takes "if you can see it, you can clean it" to the "you can see it, touch it and clean it" capability, according to Mohar.

Coomer agrees. "That's exactly what we have. You can physically touch all the powder-contact surfaces that your reclaim powder will encounter. So, you can see contamination and clean it before it gets introduced into your next powder coming through," he notes.

Aesthetic Finishers installed the first ColorMax3 system last October, in a line with an 800-ft. overhead conveyor, automatic guns, a six-stage wash and curing ovens. The line undergoes up to eight color changes a day and has allowed Coomer to exceed his goals for reclaim and quality as well as productivity.

"I love the performance," Coomer says. "We can even get contamination-free white to black. And our actual powder cost savings are phenomenal. We are reclaiming about 97 percent of all the powder we use in this booth right now."

The efficient use of material is also allowing Aesthetic Finishers to stay more competitive. The coater initiated a new pricing structure that they pass along to customers based on their ability now to reclaim and increase their line speeds.

The system also includes Nordson's iControl® integrated control system with 255 programmable recipes and Encore® and SureCoat® automatic spray guns. The system is modular in design to accommodate the various work heights and the company's ever-changing production requirements.

"Nordson has supplied all the support I needed but never got in the past," says Coomer. "Nordson and Aesthetic Finishers really came together and listened to each other. As a result, they improved their product and I improved my productivity. There are a lot of companies out there that don't have the man-

power—or the desire—to do that."

For more information on Nordson ColorMax3 system, contact Bob Allsop at 440-985-4459 or via email at bob.allsop@nordson.com, or visit www.nordson.com/powder. To learn more about services from Aesthetic Finishers, contact Bill Coomer at 937-778-8777 or visit www.afipowder.com.

Sharon Spielman is editor of Powder Coated Tough *magazine. She can be reached at 847-302-2648 or via email at sspielman@powdercoating.org.*

Powder Is Not A One-Trick Pony

BY STEVE HOUSTON

How many of these 20 uses for powder were you aware of? Are you average, well-informed, or just old like the author? Read on to find out!

Powder, which has been around for almost 50 years, typically is thought of as a single-coat coating for steel and aluminum surfaces.

Of course this is because powder does work as a fantastic aesthetic and protective coating for all kinds of steel and aluminum applications. As a matter of fact, where powder is used in many of these applications, there is nothing that can really compete with it. However, did you know powder is being used in many other applications that you may not have even thought about? The fact is, powder has been developed for multiple applications outside the typical single-coat system on steel and/or aluminum with great success. Check out the list below and see how many of these applications you knew about or had heard of before you read this article.

Photo courtesy IKON Powder Coating Inc.

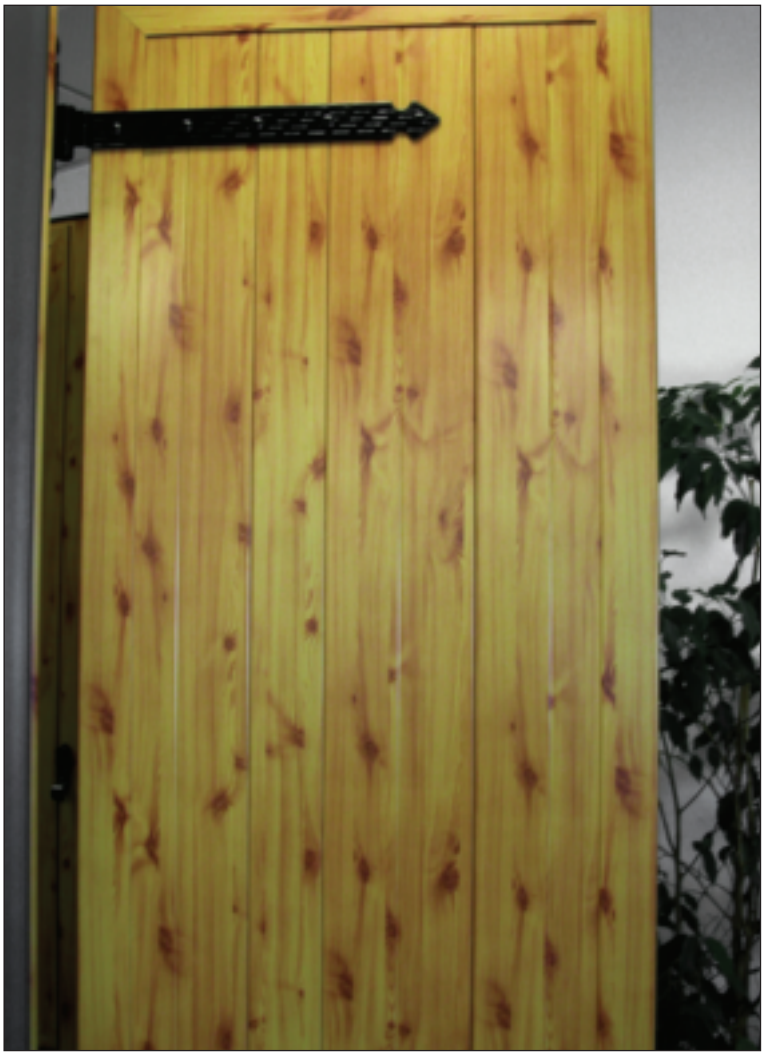
Powder can be used as an opaque color coating to enhance the appearance of perfume bottles as well as some transparent powders for glass bottles.

1 Did you know powder has been developed for applications on glass? Yes, I said glass. Powder has been used as an opaque color coating to enhance the appearance of perfume bottles as well as some transparent powders for glass bottles.

2 Have you ever seen powder applied to fiberglass? I have; and with the right process it works great. The attraction is there, and with the proper cure schedule, the out gassing you would expect from fiberglass is manageable.

3 Surely you have heard about powder on heat-sensitive substrates such as medium density fiberboard (MDF), which can be used for cabinetry and shelving, and on plastics that can be used for handles and accessories for the appli-

Photo courtesy Decoral



Powder can be used for a base coat for sublimation. Through heat and pressure, you add an emblem that penetrates the coating for extended wear and durability. In this application, the sublimation process virtually can be anything you want it to be, like the simulated wood grain pictured here.

ance and automotive markets. If you have not heard of this, where have you been? Under a rock?

4 Did you know powder has been used on assembled parts? I am talking about parts such as electrical motors and hydraulic cylinders, where the product is assembled and many of the components have a low tolerance for heat and with special formulations and unique curing system powders have worked very well.

5 Did you know you can cure some powders with special infrared (IR) curing in less than 10 seconds? I am talking completely cured, not just a gel stage.

6 How about this one: Have you ever seen powder applied in a dry-on-dry application? This is where the first coat is applied to an ambient temperature part utilizing a zinc primer and without any post thermo energy the part remains at ambient temperature when the weatherable top coat is applied. Then the two are mono-cured together, creating a fantastic intercoat adhesion and a superior protective coating. The trick is in marrying the two powders together with the proper formulations and cure process.

7 How about using powder for a base coat for sublimation? Through heat and pressure, you add an emblem that penetrates the coating for extended wear and durability. In this application, the sublimation process virtually can be anything you want it to be. It can simulate wood grain, water drops, or even a picture of yourself.

8 Today powder is also being used with a one-step coating that has multiple dry colors blended in. This gives a visual of a multi-step process. Because powder does not dissolve together during the cure cycle, many multi-color looks are achievable in a one-step process.

9 Did you know you can add anti-microbial ingredients to powder and/or formulate powder with anti-graffiti properties?

10 Get this: Powder can be applied in the field without the need for a cure oven. I have seen powder applied on pipe with an induction coil on the pipe. The coil is rolled over the area to be coated and the functional coating is applied on the hot surface and cured using residual heat. There are even application devices today that apply the coating through a flame, causing the powder to melt and fuse to the surface without the need for a post-bake oven.

11 I love this one: I recall seeing powder applied to class rings and then the surface

Powder can be used for military applications. In fact, powder primer has recently been CARC approved (see Powder Coated Tough, *Winter 2010/2011, page 16, for the full story).*

Photo credit Brett Ryden, Publisher

being polished off leaving the background powder coated.

12 How about powder used in an in-mold application? Yep, it has been done and it works.

13 Coil coating with powder is being done every day and with some very impressive line speeds.

14 Did you know you can get powder that can withstand applications where they are in excess of 1,000°F.

15 You can get peels, textures, veins, hammertones, bonded powder coatings and powder that have multiple components.

16 You can get powder to be used as an insulator and powder that can be formulated as utilizing conductive components.

17 I have seen applications using thermoset powders where the average film thickness is less than 1 mil and some where the average is in excess of 60 mils.

18 Today, powder can exceed AAMA 2605 performance needs as well as some of the most harsh chemical resistance applications you can think of.

19 I recall powder being used as a protective coating as well as adhering two metals surfaces together in the same application.

20 How about military applications, powder Teflon, and powder for porcelain enamel applications? Let's not forget to mention these!

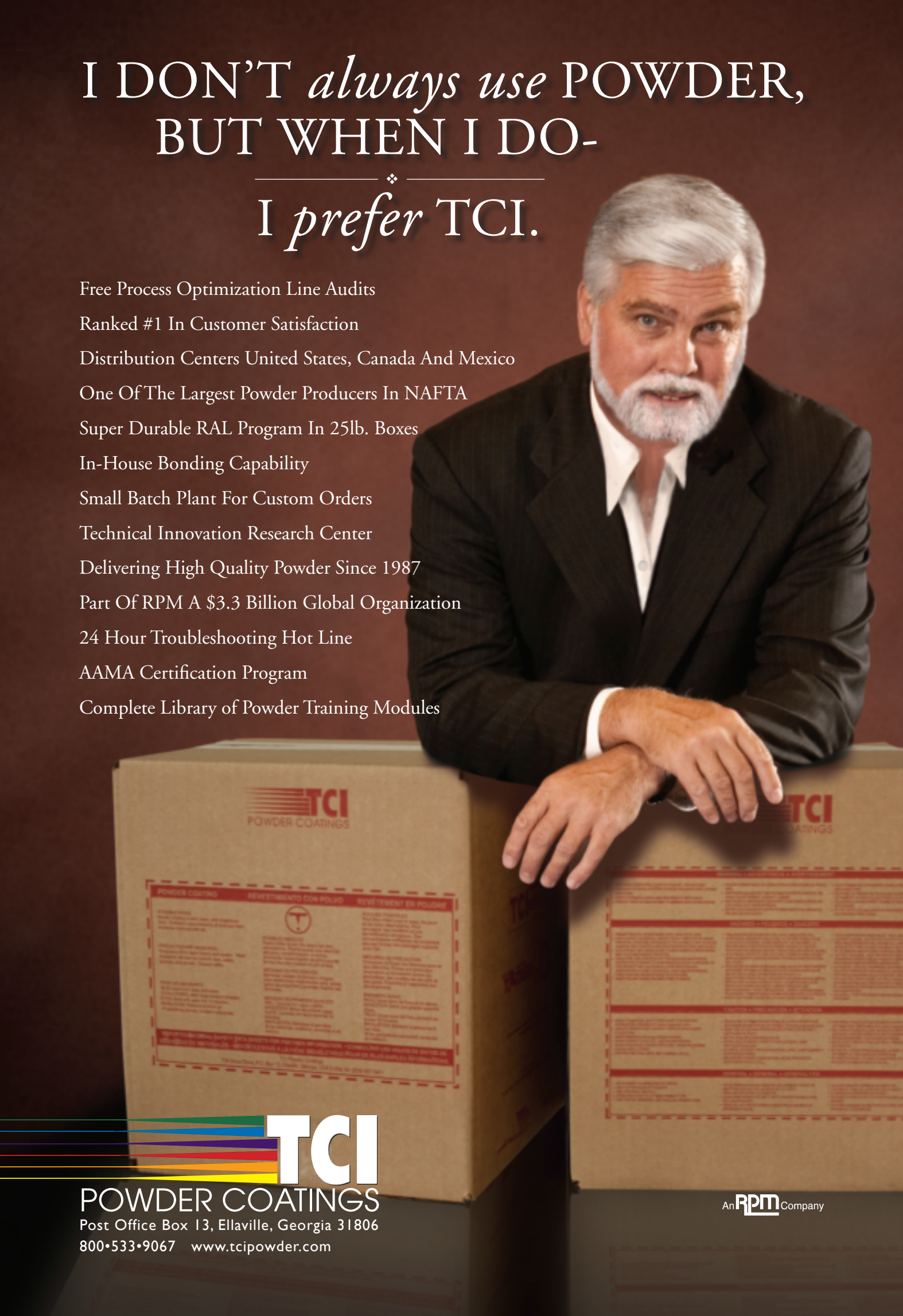
So, do you think I missed anything? Well, of course I did. There are so many unique uses for powder coatings! But, how did you do with this list? If you were aware of about 10 of these uses, you are average. If you knew about 11-15, you are well informed. If you knew 16 or more, you must be as old as I am and should probably keep that a secret.

When you need a coating for any application, don't rule out powder. It has been developed for uses well beyond what you might think it is typically used for. You may not use powder for every application, but then again, maybe you can?

Steve Houston is vice president of TCI Powder Coatings, Ellaville, Ga. He can be reached via email at shouston@tcipowder.com.

I DON'T *always use* POWDER, BUT WHEN I DO-

I *prefer* TCI.



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Get Your Head Out of the Sand, and Fight!

BRETT RYDEN
PUBLISHER

With change comes opportunity. And with the inevitable change in the economy, now is the time for aggressive marketing.

Companies that pull back to wait and see what will happen tend to watch their competitors who are aggressively marketing gain market share. Take advantage of your competitors' complacency and be a leader. Marketing helps your client see you as a leader; thus, they look to you for guidance and support. An obvious upside to this is that it helps you sell your product and gain market share. Then, when the economy recovers, you are positioned as a strong partner with your clients and you can grow together.

Marketing is a multi-level strategy that positions your company as a leader and partner for your clients. Here are some thoughts to consider:

Attend the NAI Coating Show, which is just around the corner, October 4-6, in Cincinnati. (Or, maybe you are already there, reading this!) Did you know that NAI is the only show in all of 2011 that is dedicated 100 percent to coatings? Budgets are tight and if you have capital improvements planned for coatings or are looking to grow your market, NAI is the place to be. If you are reading this article after the show has already taken place, fear not. NAI will be in St. Louis next October!

Powder Coated Tough magazine is published to educate readers and grow the powder market. It is most likely these same reasons that you read this magazine; you are on the lookout for environmentally sound ways to finish your products. And our advertisers know that it is our readers who make the magazine a success. You are the most knowledgeable coaters in the world. You continually seek more education and new technologies. That is why they market their products in *Powder Coated Tough.* It is also the reason they exhibit at the NAI Coating Show. The most dedicated, educated coaters in the world will be there, to become even better and purchase products and services to help you grow their business and career. Don't miss the consultant pavilion that will offer free advice and then send you to suppliers' booths for the help you need to best reach and exceed your goals.

In 2012, *Powder Coated Tough* magazine will expand our leadership role by co-sponsoring the new Powder Summit. This will be a 2-day event with the opportunity to learn about new technologies in powder. If you are currently using powder and want to learn more, or if you are looking to switch to powder and want to make sure you are on the cutting edge, then you won't want to miss the Powder Summit.

Let's grow the coatings industry together by keeping heads up and moving forward. As I have said for years, leaders lead. It is time to decide if your company is a leader or follower. If you're not a leader, it is time to change. The leaders will lead the way through tough times and lead your clients to improve their business.

Thank you for reading *Powder Coated Tough* magazine, and, as always, I welcome your feedback at bryden@powdercoating.org for suggestions on our growth and improvements to ensure we are serving your needs and helping you grow your business.

C'mon aboard!

Ask Joe Powder

Continued from page 10

So what is the root of the problem? Part of it is culture, part of it is specification. When a motorcycle is manufactured by the original equipment manufacturer their engineers hold both parts and materials suppliers to very exact specifications. This includes the coating's physical and performance quality as well as the amount applied and how it is cured. Aftermarket rebuilders such as Orange County Choppers probably do not hold job coaters to the same stringent specifications that OEMs do for their suppliers and finishing shops. Hence, the job coater is unaware of the strict tolerances needed to reassemble a precision machine such as a customized chopper. It's really not the coater's fault; rather, it's incumbent upon the rebuilder to specify the coating thickness tolerances that will allow for trouble-free reassembly.

The solution to this nagging conundrum: the madcap mechanics and wacky artisans at the chopper shop should understand the tolerances required and then communicate and hold their job coater to them.

The solution to this nagging conundrum: the madcap mechanics and wacky artisans at the chopper shop should understand the tolerances required and then communicate and hold their job coater to them.

Best regards,

— Joe Powder

Joe Powder is our contributing editor Kevin Biller. To submit a question, email askjoe@powdercoating.org.

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Carpenter Chemicals	703-683-1570	www.cc-lc.com	50
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Here are the answers from the Word Search from page 7.

Appliance panels are being coated using Aesthetic Finishing's latest quick color-change powder coating booth.

Photo courtesy Nordson Corporation

Powder Coated Tough
Volume 5 ▪ Number 3

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Continued from page 52

a variety of venues across the country. These include the two-day courses, Introductory Powder Coating and Advanced Powder Coating. In addition, PCI will custom-tailor a course to the needs of your organization and bring it to your facility.

One of the best ways to educate you and your staff is attendance at the upcoming NAI Coating Show being held in Cincinnati this October 4-6. Not only is the technical conference chock full of presentations illuminating the latest technology and market trends in our industry, but we will also be providing a technical help session where industry leaders will conduct a round table discussion on a wide range of topical issues. In addition, the exhibit floor is an excellent place to engage industry experts regarding technical solutions to your organization's needs.

The PCI is not stopping here. We are constantly evaluating innovative means to educate our members and their staffs. Our certification programs enlighten and enhance operational efficiency and quality. We are also revising our Technical Briefs compendium to bring them up to date in relevancy and technical accuracy. And finally we are developing technical programs aimed toward formulators, scientists and finishing engineers.

When you look at it, dedication to employee training is a no-brainer. A well-educated work force is the best asset in which a company can invest. It provides long-term dividends that buoy the bottom line more than any other place you can spend your money.

Kevin Biller is a contributing editor of Powder Coated Tough *magazine. He can be reached via email at kbiller@powdercoating.org.*

An Educated Workforce: Our Most Important Asset

BY KEVIN BILLER

It's easy to analyze our businesses with financial reports. We are all well in tune with Income Statements, Balance Sheets, A/R and A/P Reports and Cash Flow Analysis. I wonder, however, how often do we analyze the skill level of our workforce and provide the requisite training to keep them current with technology and management skills.

It is easy to cut your training budget when money gets tight, but have you seriously considered the ramifications of reducing or eliminating the continuing education of your staff? Here is a quick list of the benefits of employee training:

- A reduction in accidents and on-the-job injuries
- Increased operational efficiency
- Improved problem solving
- Increased innovation in processes and materials selection
- More independent work force requiring less supervision
- Better risk management (less harassment, diversity issues)
- Increased job satisfaction and overall employee morale
- More highly motivated employees
- Higher retention rate of employees
- Higher customer satisfaction
- Higher profits

The American Society for Training and Development observes a mixed bag for organizational spending on employee training. As one might expect, expenditures as a percent of payroll decreased from 2008 to 2009 mainly due to the economic downturn. In spite of this, training expenditure as a percent of revenue increased slightly. Training Magazine reports that the employee education budgets of 76% of organizations they surveyed were reduced or stayed the same from 2009 to 2010.

> **"What's worse than training your workers and losing them? Not training them and keeping them."—Zig Ziglar**

How much training should you dedicate to each employee? An easy rule of thumb is 40 hours per year. This can take place as traditional in-person instructor-led seminars, college coursework, webcasts, podcasts or independent e-learning (e.g., online courses). It is also wise to assess the individual's learning style when choosing a training option. Younger workers are typically more amenable to e-learning options, whereas more mature workers may prefer the more traditional methods.

In a high technology industry such as powder coatings, it is essential to continuously train employees. Here, the more traditional instructor-led method is demonstrated. As a general rule of thumb, roughly 40 hours per year should be dedicated to each employee.

In a high technology industry such as powder coatings, it is essential to continuously train employees. We here at the Powder Coating Institute take this mission very seriously. PCI has a long tradition of providing hands-on workshops throughout the year and at

Continued on page 51

Company	Member Since
3P Industries	1998
A Plus Powder Coaters, Inc. PCI 3000 Certified	1996
A-1 Paint, Powder Coating & Sandblast	2010
A&B Deburring	2011
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Argon Masking Corp.	2007
Associated Finishing, Inc.	2000
Atotech	2008
Automatic Coating Ltd.	2005
Automatic Systems, Inc.	1996
B.L. Downey Company LLC	2005
Bayer Material Science	2010
Beacon Industries, Inc.	2000
Bega-US	2010
Benda-Lutz Corporation	2007
Bulk Chemicals	2000
C-W Elaborations	1999
Calvary Industries, Inc.	2007
Cape Fear Custom Powder Coating	2000
Caplugs (Protective Industries)	2007
Cardinal Industrial Finishes	1988
Carolinas Custom Clad PCI 3000 Certified	1997
Carpenter Chemicals, LC	2000
Carrara Industries, Inc.	2005
Carrier Corporation PCI 4000 Certified	2009
Chemark Consulting Group	1998
Chemco Manufacturing	1997
Chemetall US, Inc.	2010
Chief Industries	2010
Classic Coating	2007
Col-Met Spray Booths	2007
Colouriffic Coatings Ltd.	2010
Commercial Furniture Group, Inc.	2010
Coxal Chemical	2007
Cordstrap	2011
Creative Coatings	1996
Crosslink Powder Coating	2011
Custom Equipment Design	2009
CWS Powder Coatings	2011
Cytec Industries Inc.	1987
Danick Specialties & Support Inc.	2007
Datapaq, Inc.	1994
Deacom Inc.	2007
Decoral System USA Corp.	2007
DeFelsko Corporation	2009
Deloka, LLC	2007
DENMAC Industries	1997
Destin Global, Inc.	2011
Diamond Custom Coatings	2010
Diamond Vogel Paints	1999
Digger Specialties, Inc. PCI 4000 Certified	2010
Dlubak Powder Coating	2010
DSM Powder Coating Resins	1983

Company	Member Since
Duffee Finishing, Inc.	2007
DuPont Powder Coatings USA	1982
DVUV	2011
Eastman Chemical Co.	2007
Eaton Fabricating Co., Inc.	2007
Echo Engineering	2000
Eco-Powder Coating (Light Lines, Inc.)	2009
Elcometer, Inc.	2009
EMS-Grilltech	1988
EPSI	2007
Erie Powder Coatings Inc.	
Estron Chemical, Inc.	1986
Everbrite	2010
Evonik Degussa Corp.	1993
Excell Coatings, Inc.	2000
Falcon Powder Coating	2007
Fischer Technology Inc.	2007
Fostoria Process Equipment	1997
Fusion Coatings, Inc.	2005
Galaxy Associates	1989
George Koch Sons, LLC	1990
Georgia Powder Coating, Inc.	2007
Gill Powder Coating	2011
Global Finishing Solutions	2007
Great Lakes Powder Coating, LLC	2008
H.E. ORR Company	2009
Henkel Corporation	1990
Huntsman Advanced Materials	1981
Ikon Powder Coating, Inc.	2007
Impulse Mfg. Inc.	2011
Industrial Coating Solutions	2007
Industrial Polishing Services, Inc.	2007
Inland Powder Coating PCI 3000 Certified	2007
Innotek Powder Coatings, LLC	1993
Intech Services, Inc.	2010
IntelliFinishing	2010
ITW Finishing Equipment Americas	2000
ITW Gema	1983
Keener Coatings Inc.	1998
Kettle Moraine Coatings	1997
Keyland Polymer	2011
Keystone Koating LLC	2007
KMI Systems, Inc.	2000
Kolene Corp.	
Kopacz Industrial Painting, Inc.	2000
KVF-Quad Corp.	1998
Landscapeforms Inc.	2010
Leland Industries	2007
Litelab Corporation	2009
Madison Chemical Co.	2007
Magna Exteriors & Interiors	2010
Magnum Powder Coating, Inc.	2010
Martin Specialty Coatings	2007
Matcor Metal Fabrication	2011
Memphis Powder Coating LLC	1999
MetalMasters, Inc.	2010
MetoKote Corp.	
Micron Metal Finishing	2009
Middle Atlantic Products, Inc.	2009
Midwest Finishing Systems	1997
Midwest Powder Coating	2007
Mighty Hook, Inc.	2000
Milgard Manufacturing Inc.	2009
Monarch Industrial Coatings	2000
Nation Coating Systems	2011
Nissan Chemical America Corp.	1991
Nordson Corporation	1981
North Basin Coating, Inc.	1996
Northwest Powder Coatings, Inc.	2009
Ohio Coatings, Inc.	2010
Olympic Powder Coating, Inc.	1996

Company	Member Since
Palapa Coatings	2007
Parker Ionics	1997
Pelletier's Auto Body & Powder Coating	2009
Photofusion Inc.	2011
PJ Services	2010
PJ's Fabricating Inc.	2007
Plas-Tech Coatings, Inc.	2009
Pneu-Mech Systems Mfg.	2007
Pollution Control Products	2007
Polyrheo Inc.	2010
Porter Corp. PCI 4000 Certified	2009
Powder Coating Magazine	1999
Powder Coating Consultants	1989
Powder Coating of Montana LLP	2005
Powder Coating Specialties, Inc. PCI Certified	1996
Powder Parts, Inc.	2008
Powder Tech, Inc.	1998
PowderCoatingOnline.com	2007
PowderSoft Inc.	2007
PPG Industries	1991
Precision Quincy Corporation	2007
Precor	2011
Premier Powder Coating & Custom Fab	2007
Prodigal Son Coating	2011
Production Plus Corp/Magic Rack	2007
Products Finishing	2000
Progressive Coating	2007
Pro-Kote, LLC	2009
PRS Industries	2007
Qualicoat	2011
Quality Product Finishing	2000
Rapid Engineering LLC	2009
Rapid Industries	2009
Reliant Finishing Systems	2009
S&B Finishing	2007
Shercon	1997
Sherwin-Williams Company	1999
Southwest Coating Inc.	2008
Spectrum Metal Finishing	1997
Spectrum Paint & Powder	2007
Stack-On Products	2009
Star Finishes Inc.	2007
Structural Coatings, LLC	2007
Sumitomo Corp. of America	1989
Sun Polymers International	2000
Sunset Powder Coating	2000
Super Steel	2011
Superior Powder Coating	2009
Swan Chemical, Inc.	2010
TCI Powder Coatings	2010
Techno Coat, Inc. PCI 3000 Certified	2009
Teknicote, Inc.	2005
The Powder Coating Research Group	2009
Tiger Drylac USA, Inc.	1989
Tomcor Industries	2010
Top Gun Powder Coating, LLC	2009
Trimite Powders, Inc.	1991
Trinity Industries de Mexico	2011
Trojan Powder Coating Co.	1997
Troy Corporation	1987
Tru-Line Manufacturing	2000
TSE Industries	2011
Tufcoat Propowder	2000
Uni-Spray Systems, Inc.	1992
Utah Wood & Iron LLC	2009
Valid Manufacturing	2010
Vitracoat Pinturas en Polva	1994
Wagner Systems	1989
Watry Industries LLC	2008
Westside Finishing PCI 3000 Certified	1997
Williams-Hayward Protective Coatings	2007

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