



POWDER COATING 101 Powder Coating Done Right: The Basics





February 17-20, 2020

Renaissance Orlando at SeaWorld®

Orlando, FL

conference.powdercoating.org



GENERAL INFORMATION

LOCATION

Renaissance Orlando at SeaWorld® 6677 Sea Harbor Dr., Orlando, FL 32821

EVENTS

Powder Coating 101 Workshop – The Basics
PCI Custom Coater Forum
Technical Conference
Tabletop Exhibition

DATES February 17 – 20, 2020

February 17 & 18 February 17 & 18 February 19 & 20 February 19 & 20

HOTEL

PCI has made arrangements for a discounted group rate at the Renaissance Orlando at SeaWorld[®]. Visit our event website to make reservations directly with the hotel. Note, rooms are limited at these rates so be sure to make your hotel reservations as soon as possible. Please book your hotel room within our hotel block listed below as it enables us to keep costs low for attendees, speakers and exhibitors.

To book your room at the Renaissance Orlando at SeaWorld[®] at our discounted group rate of \$209/night + tax & resort fee, visit **conference.powdercoating.org** and click on the **Hotel/Travel** tab at the top of the page.

The hotel cutoff date for reservations at our discounted rate is January 24, 2020. Please make your hotel reservations early as we expect our room block to sell out!

REGISTRATION

To register for any of the Powder Coating Week 2020 events, visit **conference.powdercoating.org** and click the **REGISTER** button at the top of the page. See pricing and a complete listing of registration options at the back of this brochure. Combination discounts are available for attendees registering for both the twoday Technical Conference and either the Powder Coating 101 Workshop or the Custom Coater Forum. *Register by January 10 to receive the lowest rates.*

ENJOY ORLANDO

One of the world's favorite spots, Orlando offers a wide variety of parks, entertainment complexes, restaurants and world-class shopping. Many attendees will bring family to enjoy Orlando before or after PCI's Powder Coating Week, so we've posted a list of Orlando resources on the event website. Visit **conference.powdercoating.org/venue.html** and scroll down for links to many of Orlando's top attractions.



SCHEDULE OF EVENTS

MONDAY, FEBRUARY 17 POWDER COATING 101 WORKSHOP AND CUSTOM COATER FORUM

10:00 AM	Registration Opens
1:00 – 5:00 PM	Powder Coating 101 Workshop: The Basics
1:00 – 5:00 PM	PCI Custom Coater Forum
5:00 – 6:00 PM	Reception for Workshop & Forum Attendees



TUESDAY, FEBRUARY 18 POWDER COATING 101 WORKSHOP, CUSTOM COATER FORUM & TECHNICAL CONFERENCE RECEPTION

7:30 AM	Registration Opens
8:00 – 8:30 AM	Breakfast for Workshop & Forum Attendees
8:30 AM – 4:30 PM	Powder Coating 101 Workshop: The Basics
8:30 AM - 4:30 PM	PCI Custom Coater Forum
Noon – 1:00 PM	Lunch for Workshop & Forum Attendees
4:30 PM	Workshop & Forum Conclude
8:30 PM	After Hours Welcome Reception for the Technical Conference

WEDNESDAY, FEBRUARY 19 POWDER COATING 2020 TECHNICAL CONFERENCE AND EXHIBITION

7:00 AM	Registration Opens
7:30 – 9:00 AM	Opening Breakfast & Keynote Address
9:15 – 11:00 AM	Breakout Sessions
11:00 AM – 1:00 PM	Lunch and Tabletop Exhibition Open
1:15 – 4:15 PM	Breakout Sessions
4:30 – 6:30 PM	Reception and Tabletop Exhibits Open

THURSDAY, FEBRUARY 20 POWDER COATING 2020 TECHNICAL CONFERENCE AND EXHIBITION

7:15 AM	Registration Opens
7:30 – 9:15 AM	Breakfast with Roundtable Discussions
9:30 – 11:00 AM	Breakout Sessions
11:00 AM – 1:00 PM	Lunch and Tabletop Exhibition Open
1:15 – 3:30 PM	Breakout Sessions
3:30 PM	Closing Session & Montana Trip Giveaway
3:45 PM	Powder Coating 2020 Technical Conference Concludes

Register now at conference.powdercoating.org

POWDER COATING 101 Powder Coating Done Right: The Basics

PCI's Powder Coating 101 is a one-and-a-half day workshop that introduces attendees to powder coating by focusing on materials, application, reclamation, testing & evaluation, quality control, the powder manufacturing process and much more. Attendees will gain knowledge of powder coatings and the powder coating process from industry experts as well as have the opportunity to network with speakers and other attendees during a reception on day 1 and lunch



on day 2. This PCI training workshop is unbiased and commercial free and provides a great foundation for the technical conference that follows later in the week.

Here are some of the comments from last year's Powder Coating 101 attendees:

- "Overall, the workshop has helped me out in many aspects. Very effective class, happy I attended."
- "This has been a great program. I learned a lot that I will be able to take back and use on the job."
- "The workshop was enjoyable and well put together. Speakers were very knowledgeable."
- "I'm a newbie, very good info."
- "I've learned a lot about the process of coating and many of the technical things that need to be done."



PCI's Custom Coater Forum is designed for custom coaters to network with peers and industry leaders, hear presentations on timely issues important to their business and participate in roundtable discussions that allow for sharing information. The event includes a reception on day 1 and lunch on day 2.



The Forum will feature the following presentations:

Powder Coating Industry and Quality Standards Marty Korecky, *AkzoNobel Powder Coatings*

Lean Principles Doug Atkin, *Optimization Consulting*

Key Metrics and Profitability for Custom Coating Businesses Tim Milner, *J.I.T. Powder Coating*

Business Continuity Planning Rick Gehman, *Keystone Koating, LLC*

Reviewing Key Metrics for *Products Finishing* **Magazine's Top Shops Program** Tim Pennington, Products Finishing *Magazine*

Understanding the Needs of the Architectural and Agricultural, Construction and Equipment (ACE) Markets Michael Withers, *Axalta Coating Systems*

Buying/Selling Your Custom Coating Business Panelists:

G.R. Kearney, *Acme Finishing* Dennis Walters, *Acme Finishing* John Heyer, *Kettle Moraine Coatings*

Improving Quality in Our Industry

Sheila LaMothe, *Goyer Management* & Michelle Payden, *ABITL Finishing*

Instagram and Facebook Strategies for Growth Troy Newport, *Goyer Management*

Roundtables: Strategies for Growing Your Customer Base

Discrete Structure Structu

PCI's Powder Coating Technical Conference has been offering outstanding education to the industry for the past 32 years! The technical conference features general sessions of interest to all powder coaters, breakout sessions covering all aspects of powder coating and a tabletop exhibition, allowing for networking, learning and conversation with exhibitors and other powder coaters. This is your chance to learn about the latest innovations and explore all things powder coating! Review our keynote and breakout sessions in this brochure and register now!

Check out a few of the comments from last year's Technical Conference Attendees:

- "Very well-run conference; clear and concise."
- "I learned a lot!"
- "Awesome content; very relevant material."
- "Speakers were helpful and knowledgeable on respective topics!"
- "Great enthusiasm at this event."

TECHNICAL CONFERENCE PROGRAM

Read through the wide variety of sessions and presentations available during PCI's Powder Coating 2020 Technical Conference. Review them closely then select your sessions during the registration process. You will be able to switch sessions on-site, but pre-selection of sessions helps immensely in setting each room with the appropriate number of seats.

KEYNOTE PRESENTATION | Wednesday, February 19; 7:30 - 9:00 AM

Sweat the Small Stuff - Attention to Detail Helps You Create a Workplace Culture that ROCKS!

Lisa Ryan, Grategy

In a full-employment economy, employees have a choice – do they stay with their company or take their skills to the competition? In this entertaining, engaging and fun program, you'll learn specific strategies that you can put into practice immediately which when applied consistently, create a workplace culture where people want to come to work and stay working.

Here are just a few of the things we'll cover:

- Why the focus should be on employees who are doing things well, instead of those who are sucking the life out of a company.
- How to build your company's reputation as a great place to work.
- How to tackle the generational divide and ensure boomers, millennials and Gen Z "play nice" with each other.
- How many of these ideas work in your personal life as well.

Paying attention to the small stuff can make all the difference in your business. Take these ideas back to your company and encourage positive changes that build a positive culture.



WEDNESDAY, FEBRUARY 19

TROUBLESHOOTING TRACK 9:15 – 11:00 AM

Best Practices for Operating Your Cartridge Booth System

Mark Folcik, Nordson Corporation

Cartridge booth systems require an understanding of their components and operation to get the most efficiency from the system. The presentation will cover key components, baseline settings and why they are important, common mistakes related to powder recovery, following a routine preventative maintenance schedule, troubleshooting, picture and video examples of good and bad practices.

What Is This Stuff...Can We Clean It?

Ken Kaluzny, Coral Chemical Company

Whether you are a Custom Coater or an OEM receiving parts from a tier supplier, there will be a time when your company receives parts with an unknown soil. Ultimately someone is going to ask the question, "Can we clean this stuff?" This presentation will provide insight on predicting the removability of a soil using product literature of the lubricant or rust preventative. The main focus will be gleaning clues from safety data sheets to predict whether your process can remove the incoming soil.

Be Nice to Mother Earth! How to Remove Oils & Soils from Your Wastewater and Recycle Your Aqueous Cleaning Solutions

Ray Graffia, Arbortech Corporation

Contamination classification is critical to keeping industrial wastewater discharges legal and maintaining aqueous cleaning solutions in optimized working condition. Defining contaminants and discussing multiple options for handling them summarizes this presentation's initial focus. After covering basic oil/soil removal options, time will be spent discussing membrane filtration.

MARKET TRACK

9:15 - 11:00 AM

Tattoo Your Metal with Sublimation Technology! Marco Menin, Menphis s.p.a

Sublimation is an environment-friendly technology capable of impressing images onto powder-coated surfaces, thanks to an easy yet highly productive process. Invented in Italy over 30 years ago and now a worldwide classic, this technology allows architects, extruders and powder coaters to come up with new, eye-catching products, without compromising core values such as durability and performance.

Curing Heat Sensitive Substrates: Tricks of the Trade Marty Sawyer, *Trimac Industrial Systems*, *LLC*

With advancements in powder coating technology and oven designs, new substrates for powder coating are becoming more prevalent. On hard woods & MDF to composites & plastics, curing powder requires more finesse and control than traditional curing methods. Convection, Gas Catalytic IR, Electric IR & UV will be discussed in depth on these substrates to evaluate and determine the best heat technology.

Architectural Aluminum

Steve Edens, Henkel Corporation

This presentation will address the North American architectural aluminum market with a focus on cleaning, conversion coating and how it relates to powder coating.

AUTOMATION TRACK

All Day Track

Is an Automated System Right for You? Nick Liberto P.E., Powder Coating Consultants

Making equipment selections for an automated finishing operation can be difficult and confusing, as equipment features and designs can be diverse and numerous. Successful finishing operations "right-sized" their equipment selections to meet defined production, flexibility, and quality goals to ensure capital funds are spent wisely. Attendees will receive a complete overview of process considerations that affect capital costs and operational costs while meeting production, flexibility, and quality goals.

Pretreatment Considerations for Process Changes Kirk Beaster, BASF/Chemetall

Process change is expected with advancements in pretreatment technology and demands for increased finished product quality. Whether it's changing pretreatment suppliers, pretreatment type, end product or equipment, there are many factors that must be considered. This presentation will cover the key focus areas necessary when making changes to an automated pretreatment process. These areas include process inputs, product selection, solution flows and best practices.

Industry 4.0 and IIoT, Something for Everyone

Bobby Benson, Nordson Corporation

Manufacturers of all shapes and sizes can benefit from Industry 4.0 and IIoT solutions. This exciting technology can help improve people, products and overall powder coating processes. Case studies will demonstrate how small, medium and large powder coaters in different market segments can get started with Industry 4.0 and IIoT.

How is IoT Helpful to Me?

Hector Flores, Wagner Industrial Solutions

This presentation will focus on the current IoT apps available for coating systems and their emerging usefulness in powder coating. Attendees will learn what they can do and how they are useful as well as what is needed to paint a complete picture of the operations. They will also hear what the future looks like and additional features expected.

Demonstration of a State-of-the-Art Automated Finishing Control System

John Claman, IntelliFinishing

Using a simulation of an operating control system, this session will demonstrate advanced computer controls/operations that could be developed for any sophisticated automated system. This would include showing recipe control, system/carrier status, alarm options & tracking, optimal part loading/mask instructions, preventive maintenance, ERP/ robotic integrations, mobile options, & reporting.

Robotics Presentation

Barton Faylor, FANUC Robotics Americas, Inc.

This presentation will review current and new products for robotic powder painting including vision ID and offset path adjust as well as offline and scan to path systems. Attendees will also learn about software tools to enhance robotic finishing systems.

Tolliver Powder Coating Case Study

Mark Folcik, Nordson Corporation Brandon Greer, Tolliver Powder Coating

Tolliver Powder Coating is a custom coater specializing in coating aluminum railing and gates. This presentation will give the history of the company that started with the owner's grandfather's machine shop. Tolliver made the decision to move from manual application/sprayto-waste to auto application/reclaim in and they are seeing significant powder savings, increased production, and better paint quality.

WEDNESDAY, FEBRUARY 19

NEW TECHNOLOGIES TRACK 1:15 – 4:15 PM

NOTE: Speakers in this session are permitted to use commercial brand names to explain the new technology.

Zirconium-Based Cleaner-Coater with Improved Low Temperature Performance

Walter Opdycke, Henkel Corporation

Traditional Cleaner-Coater products rely on surfactant technology to achieve cleaning. Surfactants can limit cleaner-coater application temperature because of foaming or cloud point issues. Henkel has developed a new Cleaner-Coater product that uses different technology. This presentation will show data that demonstrates improved low temperature cleaning performance and other advantages for the new product.

Breaking the Voltage Barrier with PowerBoost Technology-110,000 Volts & 110 micro amps Jeff Hale, *Gema USA*, *Inc.*

For many years, powder coaters have used electrostatic spray guns designed to limit the maximum charging power voltage to 100,000 volts (or 100 kV). New electrostatic gun technology is now available breaking this industry barrier to safely generate 110,000 volts and 110 micro amps of charging power. This presentation will cover a brief history and introduce this breakthrough technology.

Flexible, Automated, Cutting Edge Material Handling Chad Andreae, Therma-Tron-X, Inc.

This presentation will discuss TTX's Automated Conveyor Carrier (ACC®) system. The TTX ACC® is a flexible and cost-effective material handling solution that incorporates a wireless network to send instructions to the carriers through-out your paint line. ACC®s are hung on an overhead I-Beam and use an adjustable friction drive wheel.

Powders Coatings for Extreme Edge Coverage and Corrosion Protection

Kathryn Shaffer, PPG Industrial Coatings

Corrosion protection is one of the biggest challenges for the coatings industry. This presentation will discuss a multi-faceted approach to solve the edge corrosion issue, which goes far beyond the well-known flow restriction solution for edge coverage. Our new powder coating platform provides a direct-to-metal answer for corrosion protection.

OptiStar All-In-One, Combining Delivery and Application Control Into One Compact Device Chris Merritt, Gema USA, Inc.

Elimination of traditional pneumatic air lines found in every powder system is a significant breakthrough. New control unit and injector technology is now available that will simplify installation, operation, and maintenance while improving operational performance. This presentation will introduce this breakthrough All-In-One technology that combines a powder injector with a gun control unit.

Non-Reactive vs. Reactive Pretreatments

Sergio Mancini, Bulk Chemicals, Inc.

Non-reactive vs. reactive pretreatments are increasingly becoming the chosen chemistry in many metal finishing processes and are proving to be successful. Non-reactive pretreatments have been around for decades but were mainly found in the aluminum architectural markets. Today, however, newer innovative chemistries have expanded this trend to other markets and metal substrates. These non-reactive chemistries have significant advantages over the traditional reactive chemistries. This presentation will discuss these advantages, the comparisons, and the economics.

LayerCheck Device

Hector Flores, Wagner Industrial Solutions

The LayerCheck device allows pre-cure precise measurements at the booth to avoid costly rework. This presentation will show how it works and how it can be used.

Next Generation Digital Control of Powder Coating Application Equipment featuring Pulse Power Advance Corona Charging Technology

John Cole, Parker Engineering of America

This session will introduce attendees to the next generation of the widely successful Pulse Power Advanced Corona Charging Technology as well as the first digital controller to use programmable regulator technology for air control in the powder coating process. The Parker Proficy System will also feature the NEW Parker LEAPS Control System that utilizes the IoT for full control of your automated powder coating process.

BATCH TRACK

1:15 – 4:15 PM

Effective and Efficient Batch Powder Coating Systems

Mike Withers, Axalta Coating Systems Greg Dawson, Nordson Corporation John Sudges, Midwest Finishing Systems

New to powder coating or need to increase your efficiency and effectiveness with a batch powder coating system? This session discusses the best practices for running a batch powder coating system.

Evolution of a Batch System Operation: A Fabricator's Case Study

Marty Sawyer, Trimac Industrial Systems, LLC Neal Spencer, Ernest-Spencer Metals Inc.

Ernest-Spencer Metals' first batch system was designed using carts and a manual pull overhead conveyor. Twelve years later they installed a second system in a new location. How was it impacted by the old system? This presentation will review their more complex conveyor layout and how it efficiently combined their processes (shot blast, powder coat, cure) to improve their bottom line and increase quality.

What a Mess...Keep the Powder in Your Booth! Frank Mohar, Nordson Corporation

This presentation will cover many of the problems that companies encounter with powder not being contained within their powder booth. This presentation will review the many symptoms, what can cause the issues, and how to correct them.

Tabletop Exhibition and Reception will be open from 4:30 - 6:30 PM



THURSDAY, FEBRUARY 20

GENERAL SESSION & BREAKFAST 7:30 – 9:15 AM

Powder Coating Roundtables

Some of the best information attendees receive at the conference come from roundtable discussions with their peers. The roundtables will take place during breakfast to open Day 2 of PCI's 2020 Technical Conference program. These informal discussions will be captured and shared with the entire audience.

FORMULATION TRACK

All Day Track

NOTE: Many of the presentations in this session include new technologies where speakers are permitted to use commercial brand names to explain the new technology.

Polyester Powder Resins for One Shot Matte Application Paul Buijsen, DSM Coating Resins

In combination with a global trend towards low gloss coating appearances, a portfolio of acid functional matte powder coatings is developed. This portfolio includes (low temperature cure) dry-blend systems as well as one-shot systems being suitable for various applications. Detailed progress and results, with a focus on the one-shot-matte systems, will be presented regarding gloss stable robust matte formulations. Also, insights regarding the mechanism of matting in powder coatings will be shown.

New Generation Reactive Matting Additive for Epoxy and Hybrid Powder Coatings

Atman Fozdar & Ronald Lewarchik, Chemical Dynamics LLC

With recent increases in the use of smooth matte epoxy and epoxypolyester hybrid powder coatings for interior application, there's a growing need for development of novel multifunctional raw materials/ additives which can provide desired results. This presentation will discuss different approaches to impart "matting" and reactions with epoxy based on alternative chemistry and how physical aspects such as particle size distribution, surface area and softening point can influence matting efficiency while improving storage stability without affecting reactivity.

FEVE Fluoropolymer Resins for Highly Weatherable and Corrosion Resistant Coatings

Hongli Wang, AGC Chemicals Americas

FEVE fluoropolymer resins offer coatings superior strength against UV degradation. They are used in powder coatings for a variety of applications including architectural facades, industrial storage tanks, and aerospace. FEVE based powder coatings allow suppliers to the architectural market to meet the rigorous demands of the AAMA 2605 standard of performance. This presentation will review the results of a study of FEVE powder coatings applied in corrosive environments. It will compare performance of FEVE powder coatings directly to metal as well as over anti-corrosive primers. An update on formulating techniques and processing of FEVE resin technology will also be shared.

New Antistatic Powder Coatings

Jongchun Oh, KCC Corporation

This presentation will review electrostatic discharge (ESD) powder coatings produced through new raw materials and methods. They have uniform distribution of conductive materials and the charging performance of the coating film does not deteriorate even when the coating film thickness is more than 80 to 100 microns compared to conventional products with conductive pigments.

Graphene/Wax Composites for Anticorrosion

Rich Czarnecki, Micro Powders, Inc.

Graphene oxide is a carbon-based material similar to carbon nanotubes and fullerenes. This nanosized black powder has been shown to improve corrosion resistance in protective coatings. This session will present information on composite powders based on combinations of graphene oxide with polyolefin waxes. The resulting graphene oxide composite powders are easier to use and safer to handle in laboratories and manufacturing facilities. Corrosion resistance data will be presented to demonstrate the benefit of graphene oxide modification in coatings applied over both bare and FePO4 pretreated cold rolled steel substrates.

Multifunctional Additives for Powder Coatings Michael Watson & Mouhcine Kanouni, Clariant Corporation

For BL PA, a new additive package is used as a light stabilizer additive while also offering static charge enhancing effect, reduction in yellowing, and prevention in gas fading discoloration. For BL AS, new micronized wax texturing agents offer improved mar resistance, good matting effect and anti-fingerprint while meeting the upcoming PFOA regulations. In addition, another wax texturing agent offers improved flow, improved edge covering and improved adhesion in a PTFE-free option.

Specialty Crosslinkers for Improved Powder Coating Properties

Bernd Knobloch, EMS-GRILTECH

Primid® XL-552 is one of the best-known HAA crosslinkers for powder coatings worldwide but it has some limitations when used in gas-fired ovens or thicker coatings. By modifying its chemical structure, Ems-Chemie has developed two specialty crosslinkers especially suited for those types of applications. Primid QM-1260 has a faster cure (gel) time, better color stability (even at increased benzoin levels) and higher chemical resistance than the former. Due to its high film build, Primid SF-4510 provides optimum results when used in thick coatings (> 120µ), as well as higher gloss and longer open time.

High Weatherability Powder Paint for Automotive Exterior Parts and Weatherproofing Method

Hwang Sangok, KCC Corporation

In the automotive market they are striving to increase UV stability and component life by strengthening weatherability specification. Although various accelerated weathering methods have been introduced to simulate weatherability, existing methods use acceleration only in certain wavelength ranges. Unlike the existing method, this presenation will show a newly developed method of accelerating the weatherability.

MAXIMIZING EFFICIENCIES TO MAXIMIZE PROFITS TRACK All Day Track

Guide to Purchasing a Finishing System Rich Saddler, Industrial Finishing Solutions LLC

Communicating and documenting requirements up front improves the end result and helps everyone involved reach a common goal when purchasing a finishing system. The more research and investigation performed ahead of the release of a purchase order for a new system, the better the end results are for both the supplier and customer. This session will walk through everything to consider related to timelines and schedule milestones, project management principles and interaction, and more.

THURSDAY, FEBRUARY 20

Real Cost to Powder Coat

Mike Withers, Axalta Coating Systems

When asked what it costs to powder coat parts, most people say they purchase X number of pounds and pay Y price/pound so their cost to coat is X times Y. This session will explore "applied cost." Applied cost is what you are really paying to coat your parts. Attendees will learn about rework and its impact on cost. After this presentation attendees will be able to return to their plant and make an impact.

Improved Efficiency Through Racking: How to Eliminate Wasted Labor and Space

Isaiah Haley, Production Plus/Magic Rack

Manufacturing coated products can involve multiple steps – moving parts from production to pallets, moving the pallets to a loading area, and then moving parts to the powder line. Re-think racking that allows loading racks directly from production and then place racks directly on the line; effectively eliminating unnecessary steps and maximizing powder coating profitability.

Optimizing Quality and Material Consumption with Non-Contact Film Thickness Measurement Martin Rola, Sapience Automation

Newly introduced non-contact film thickness sensors designed specifically to integrate with both automated and manual powder coating lines have enabled manufactures to make step-change improvements in both product quality and material consumption. This presentation gives a background on the technology and provides examples of successful implementations.

Benefits of Automating Industrial Finishing Door Systems Zach Morrow, *RollSeal, Inc.*

In recent years, many markets have shifted toward using a variety of roll-up fabric doors in high cycle applications or in applications where the sealing capability of the door becomes the most prevalent need in designing a system. This session will walk through the process that goes into choosing whether your system is the right fit for a roll-up fabric door as well as the steps that need to be taken to determine whether you would see an ROI benefit of automating the door system on an existing booth or oven. Additionally, there will be a review of some of the field trial data and case studies that have been completed.

TESTING & MEASUREMENT TRACK 9:30 – 11:00 AM

Know Your Options

Mike Beamish, DeFelsko Corporation

In today's competitive environment, customers often choose suppliers that have solid quality control systems. By investing in some basic test instrumentation, coaters can study trends, reduce costs, and retain customers by providing them with a consistent, durable, and aesthetically pleasing coating. Every applicator should know what equipment is available and know how to use it. This presentation provides an overview of the various types of quality control equipment that are available to powder coaters, ranging from equipment found in most powder coaters' toolboxes to more specialized equipment for specific quality control challenges or larger operations.

Study to Measure Mechanical Properties like Hardness, Elastic Modulus, Creep and Much More of a Variety of Powder Coatings using Nanoindentation

Rahul Nair, Fischer Technology, Inc.

The mechanical properties of powder coatings, such as indentation hardness, elastic modulus and creep, are all critical parameters relating to the durability, functionality and toughness of the cured coating. Typical test methods for hardness and flexibility of powder coatings that have been in use for several decades have many limitations. All of these tests are affected by the substrate material and thickness of the coating. Micro and nanoindentation testers address many of these limitations and provide several other advantages. This presentation details the test setup and results from nanoindentation measurements on acrylic, polyurethane and blended powder coatings and more.

POWDER COATING DONE RIGHT 1:45 – 3:30 PM

Can you tell the difference between parts that are properly powder coated and those that aren't? Can you identify defects and what causes them? This will be your opportunity to test your knowledge. This interactive session is designed to teach you how to identify good and bad powder coated parts and learn methods for troubleshooting defects. We want to ensure you walk away knowing how to do powder coating right!

CLOSING SESSION & MONTANA TRIP GIVEAWAY 3:30 – 3:45 PM

Join us as we wrap up Powder Coating Week 2020 and end with a very special giveaway – a trip to PCI's 2020 Annual Meeting from June 22 – 24, 2020, in Whitefish, Montana, near Glacier National Park. The trip includes a 3-night stay at the host hotel; complimentary registration to the meeting and \$500 towards airfare for the lucky winner. The prize does not include optional activities fees. Winner must pay for any optional activities in which they wish to participate. Prize is non-transferable.

Giveaway value: \$2,300



The Lodge at Whitefish Lake | Whitefish, MT June 22 - 24, 2020

Only end users of powder coating and custom coaters are eligible to win. Attendee **MUST BE PRESENT** to win!

Register now at conference.powdercoating.org

REGISTRATION FEES

PCI is hosting three separate events in Orlando during POWDER COATING WEEK 2020 (Powder Coating 101 Workshop, Custom Coater Forum and Powder Coating 2020 Technical Conference and Exhibition) and each event has a separate registration fee. We are offering discounted combination fees to attend the Technical Conference with either the Powder Coating 101 Workshop or Custom Coater Forum. Note: The Powder Coating 101 Workshop and Custom Coater Forum registration fees alone do not include admission to the Technical Conference or Exhibition.

Two-Day Powder Coating 2020 Technical Conference – February 19 & 20

Member

Non-Member \$599 through January 10 \$675 after January 10

Member Exhibitor: \$395

\$499 through January 10

\$595 after January 10

Two-Day Technical Conference Fee Includes: Admission to any Powder Coating 2020 Technical

- Conference session on February 19 & 20
- Admission to the Tabletop Exhibition on February 19 & 20
- Continental breakfast, refreshment breaks & lunch for the duration of the Technical Conference on February 19 & 20
- Admission to the After Hours Reception on February 18
- Tabletop Exhibition reception on February 19
- One copy of conference presentations on a flash drive

One-Day Powder Coating 2020 Technical Conference – either February 19 or 20

Member \$295 through January 10 \$325 after January 10

Non-Member \$325 through January 10 \$360 after January 10

Member Exhibitor: \$199

One-Day Technical Conference Fee Includes:

- Admission to Powder Coating 2020 Technical Conference sessions on either February 19 OR 20
- · Admission to the Tabletop Exhibition on both days
- Continental breakfast, refreshment breaks & lunch on one day of your choice
- Tabletop Exhibition reception on February 19
- One copy of conference proceedings on a flash drive

Tabletop Exhibition Only (February 19 & 20)

See Schedule of Events for Tabletop Exhibition Hours

Member \$175 through January 10 \$199 after January 10

Non-Member \$199 through January 10 \$225 after January 10

Tabletop Exhibition Only Fee Includes:

- Admission to the Powder Coating 2020 Tabletop Exhibition on both days
- Tabletop Exhibition reception on February 19

Lunch on February 19 & 20

Registration for the Powder Coating 101 Workshop and the Custom Coater Forum does not provide admission to the Powder Coating 2020 Technical Conference & Exhibition. You must register for those events separately.

See the Combination Registrations below for available discounts.

Powder Coating 101 Workshop (February 17 & 18)

Member \$420

Non-Member \$595

Workshop Fee Includes:

- Powder Coating Finisher's Handbook (a \$120 value)
- Refreshment breaks on February 17 & 18
- Networking reception on February 17
- Continental breakfast & lunch on February 18
- Workshop handouts
- Certificate of Completion

Custom Coater Forum (February 17 & 18)

Non-Member Member \$375

\$475

Custom Coater Forum Fee Includes:

- Admission to all Custom Coater Forum Sessions
- Refreshment breaks on February 17 & 18
- Networking reception on February 17
- Continental breakfast & lunch on February 18

Discount Combination Registrations

Save 25% when you register for the Two-Day Technical Conference & PCI Powder Coating 101 Workshop OR the Custom Coater Forum!!!

The discount will automatically be applied during the registration process when you select one of the two combinations listed below

Two-Day Technical Conference & PCI Powder Coating 101 Workshop

Member \$689.25 through January 10 \$895.50 through January 10 \$761.25 after January 10

Non-Member \$952.50 after January 10

Two-Day Technical Conference & Custom Coater Forum

Member

Non-Member

\$655.50 through January 10 \$727.50 after January 10

\$805.50 through January 10 \$862.50 after January 10

TABLETOP EXHIBITORS

Tabletop exhibitors are listed as of December 5, 2019. Tabletop exhibitors are added frequently, so be sure to check our website for an up-to-date listing.

ACT Test Panels, LLC AkzoNobel Powder Coatings Arkema Coating Resins Axalta Coating Systems BASF/Chemetall BCI Surface Technologies BYK-Gardner USA Calvary Industries, Inc. Canadian Finishing & Coatings Manufacturing Magazine Caplugs/Shercon **Carlisle Fluid Technologies Chemical Coaters Association** International **DeFelsko Digilube Systems** Dinamec Systems, LLC **DuBois Chemicals** Elcometer. Inc. **EPSI Masking Solutions** FAMIS, Inc. Fischer Technology, Inc. Fostoria Process Equipment, Div. of TPI Corp. Gema USA, Inc. **General Fabrications Corporation George Koch Sons** Georgia-Pacific Chemicals **Global Finishing Solutions Hedson Technologies North America Henkel Corporation** Heraeus Noblelight America LLC

Hi-Tech Flexible Products

IFS Coatings IntelliFinishing **Keyland Polymer UV Powder, LLC** Link Color NA Inc Magic Rack/Production Plus Menphis s.p.a. Micro Powders, Inc. **Midwest Finishing Systems Nordson Corporation Parker Ionics Patriot Powder Coatings** PEM Inc. Pneu-Mech Systems Mfg., Inc. **Powder Coated Tough** Powder Coating Center RADAR The Powder Coating Institute **PPG Industries Products Finishing Richards-Wilcox**, Inc. RollSeal, Inc. SAMES KREMLIN The Sherwin-Williams Company Sun Polymers International Inc. **TCI Powder Coatings** Therma-Tron-X, Inc. **TQC-USA**, Inc. Trimac Industrial Systems, LLC Wagner Industrial Solutions

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