# OCI Powder Coating 2019 Technical Conference



## TECHNICAL Conference

# TABLETOP Exhibition





# Powder Coating 101 Workshop

CUSTOM COATER Forum



APRIL 1 - 4, 2019 | RENAISSANCE ORLANDO AT SEAWORLD<sup>®</sup> CONFERENCE.POWDERCOATING.ORG



## **General Information**

#### **LOCATION**

#### Renaissance Orlando at SeaWorld®

6677 Sea Harbor Dr. Orlando, FL 32821

#### DATES

April 1 - 4, 2019

#### **EVENTS**

Powder Coating 101 Workshop: Basic Essentials	April 1 & 2
PCI Custom Coater Forum	April 1 & 2
Technical Conference	April 3 & 4
Tabletop Exhibition	April 3 & 4

### HOTEL

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

#### Renaissance Orlando at SeaWorld® room rate:

\$199/night + tax & resort fee

Visit **conference.powdercoating.org/venue.html** to make your hotel reservations today!

The cutoff date to reserve your room at our discounted rate is **March 8**, **2019**.



### **TECHNICAL CONFERENCE PROGRAM**

PCI's Powder Coating Technical Conference has been offering outstanding education to the industry for the past 31 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! Read through our keynote and breakout sessions in this brochure and register now!



## **Powder Coating 101 Workshop**

PCI's Powder Coating 101: Basic Essentials Workshop is an introduction to powder coating that focuses 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 one and lunch on day two. This PCI training workshop is unbiased and commercial free and provides a great foundation for the technical conference that follows later in the week.



## **CUSTOM COATER FORUM**

PCI's Custom Coater Forum is designed to provide custom coaters the opportunity to network, 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 one and lunch on day two.



## **Schedule of Events**

#### **MONDAY, April 1**

#### Powder Coating 101 Workshop and Custom Coater Forum

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

#### **TUESDAY, April 2**

#### Powder Coating 101 Workshop and Custom Coater Forum

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: Basic Essentials
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

### WEDNESDAY, April 3

#### POWDER COATING 2019 Technical Conference and Exhibition

7:00 AM	Registration Opens
8:00 - 8:30 AM	Continental Breakfast
8:30 – 9:45 AM	Opening General Session
10:00 - 11:30 AM	Breakout Sessions
11:30 AM - 1:30 PM	Lunch and Tabletop Exhibition
1:45 – 3:15 PM	Breakout Sessions
3:15 – 6:30 PM	Tabletop Exhibits Open
4:00 - 6:30 PM	Reception and Tabletop Exhibition

### **THURSDAY, APRIL 4** *POWDER COATING 2019 Technical Conference and Exhibition*

7:30 AM	Registration Opens
8:00 - 8:30 AM	Continental Breakfast
8:30 – 9:45 AM	General Session
10:00 - 11:30 AM	Breakout Sessions
11:30 AM - 1:30 PM	Lunch and Tabletop Exhibition
1:30 - 3:00 PM	Breakout Sessions
3:00 - 4:00 PM	Closing General Session
4:00 PM	Powder Coating 2019 Technical Conference Concludes

## What Last Year's Attendees Had to Say:

There were a great variety of topics addressing the many facets of powder coating.



Very positive atmosphere from presenters and exhibitors alike.

I found the topics at this conference suited my needs.

Excellent networking event! There are a wide variety of sessions and presentations available during PCI's Powder Coating 2019 Technical Conference. Review them closely here, then select your sessions during the registration process.

#### WEDNESDAY, APRIL 3

8:30 AM - 9:45 AM GENERAL SESSION

#### 1. *KEYNOTE*: From Surviving to Thriving: Changing Your Corporate Culture Dr. Amber Selking,

Lippert Components, Inc.

Finding & then keeping skilled staff is a major issue facing American manufacturers. When Lippert Components, Inc.'s workforce attrition exceeded 100%, efforts were made to completely change the company's culture. Their efforts led to an 85% reduction in employee attrition and a company that people now want to work for. Learn how they did it in this opening keynote session presented by Lippert's Director of People Performance, Dr. Amber Selking. While their methods are innovative, they are also easy to implement. This session will get you thinking and excited about your own operations!

#### 10:00 AM - 11:30 AM BREAKOUT SESSIONS

#### 2. The Building Blocks of a Successful Powder Coating System

Greg Dawson, Nordson Corp. John Sudges, Midwest Finishing Systems, Inc. Michael Withers, Axalta Coating Systems

Whether you are planning to convert from an existing liquid paint system or getting into powder coating from scratch, there are essential elements required to ensure your best chance of success. This session will discuss the building blocks of a welldesigned, high-performing powder coating system, from pretreatment to powder application and recovery to curing. Experts will collaborate to help you make the right choices to best meets your needs.

#### **3. Specialty Applications**

Two-Coat Powder Coating System Selection - How They Make Cents (and Dollars) For Your Business **Tabitha McLeish**, The Sherwin-Williams Co.

Two-coat powder coating systems provide applicators with ample benefits, including superior corrosion protection, edge coverage and asset longevity. With many different primers, topcoats, and systems available, it can be challenging to understand the options. In this session, you'll learn how to choose the best fit for your business or application, the most effective methods for applying two-coats, and overcoming some of the more frequent challenges with their application.

#### Benefits, Myths, and Markets for Teflon™ Powder Coatings

Chris Dohl, Intech Services

For decades, Teflon<sup>™</sup> fluoropolymer coatings have been used to solve problems in virtually every industrial and consumer segment. These coatings are widely characterized to have outstanding low-friction, nonstick, chemical resistance, and hydrophobic properties. This presentation will discuss in detail the Teflon™ powder coatings that can be applied to various substrates to increase performance in the above categories. It will review the myths that surround Teflon™ and review in detail the process of applying these coatings using the same equipment as traditional powder coating. The presentation will conclude by discussing markets and applications where Teflon<sup>™</sup> powder coatings are currently being used on a daily basis.

#### 4. Running an Efficient Powder Coating Line

New Economical Fast Color Change System Allows Powder Coater to Minimize Lead Times Carl Troiano, Trojan Powder Coating Frank Mohar, Nordson Corp.

Carl Troiano, owner of Trojan Powder Coating, will discuss his new economical fast color change system and how it has helped increase his productivity by over 50%. This session will include a question and answer segment on how his sublimation process works, along with samples available for attendees to see the results first-hand.

#### Learn to Love your Powder Application Process Loren Smeester, Nordson Corp. Greg Popp, SMC Metal

The powder paint line-always the "problem child" in Monday morning staff meetings. Safety, regulatory, throughput, workforce development, employee engagement issues and powder application challenges were all preventing SMC Metal Fabricators from delivering finished products within spec and on time. This case study presentation will detail the process of considering alternatives, performing the due diligence, engaging the paint line players, establishing the goals, implementing the choices, achieving the intended goals, and capturing return on investment required by management. The success story of SMC and their people is an amazing one, and one which the powder industry can embrace and learn how to love their powder line.



#### 1:45 PM – 3:15 PM BREAKOUT SESSIONS

5. Understanding Batch Systems Best Practices for Manual Pretreatment Applications Kirk Beaster, BASF/Chemetall

This presentation discusses the best practices recommended to provide consistent results when applying pretreatment using manual equipment. Using these practices to develop the proper SOPs and conducting regular hands-on training is vital to providing consistent quality. Cleaning, rinsing and conversion coating best practices will be presented for advanced pretreatment (zirconium, thin film, non-phosphorus, etc.) processes as well as the conventional iron phosphate processes utilized in many facilities.

#### Options to Consider in a Manual Powder Coating Application Process

#### Jackson Horne, Nordson Corp.

Correct setup and configuration are keys to an efficient manual powder coating process. Knowing the options when it comes to equipment settings and application environment will help drive your product to a consistent and efficient finish. This presentation will cover manual handgun systems, pumps, air settings, electrostatics and application environment.

## Efficient/Effective Racking and Hook Selection in Batch Systems

## **Isaiah Haley,** Magic Rack/Production Plus Corp.

Batch systems are often the 'bottle neck' of paint lines due to inefficient hanging methods and tying up expensive real estate, such as paint booths, curing ovens, etc. That costs both time and money. Whether you are using an overhead rail, batch carts or any other system to hang parts, learn how you can increase profits by rethinking racks, hooks, and space utilization to improve flow.

### WEDNESDAY, APRIL 3

1:45 PM - 3:15 PM (continued)

## 6. The Importance of Measurement & Testing: Getting it Right!

Best Practices for Preparing Samples and Performing Common Testing of Powder Coated Parts

**Nick Liberto**, Powder Coating Consultants, Division of Ninan, Inc.

Test results can be horribly skewed if the samples are improperly prepared or the test method is poorly executed. This presentation will discuss best practices for preparing test samples, statistical significance and common test faux pas to be avoided.

#### New Technology - Measuring Coatings Over Aluminum

#### Jay Kunick, Fischer Technology Inc.

There are several factors capable of influencing the accuracy of dry film thickness (DFT) readings on aluminum parts. Changes in the aluminum substrate and part curvature can both cause significant measurement errors when using the standard hand-held eddy current gauges. A solution is to use a gauge that has automatic compensation for both substrate conductivity changes and curvature built into the gauge to ensure accurate readings are obtained.

#### **Explore Color and Gloss**

Jeralyn Camp, BYK-Gardner USA

Understand how gloss affects color. Know how and when to use color measurement technology to tell you whether you see a color difference or a gloss difference.

### 7. Curing Hot Buttons

#### Understanding Heat Transfer: What's the Right Technology for Me?

## Marty Sawyer, Trimac Industrial Systems, LLC

This presentation will focus on a case study of various heat technologies and the impacts they have on the powder curing process on various test parts. Utilizing light, heavy, and complex shaped parts, studies completed analyze how long-, medium- and short-wave infrared and convection heat technologies affect oven design, process and quality improvements.

#### Restricting the Limitations of Traditional Thermal Systems for Finishing Processes

#### **Lee McWhorter,** Heraeus Noblelight America LLC

Increasing production demands, higher performance coatings, and an increasing array of substrates in the finishing market have pushed the traditional paradigm of thermal technologies past their limits. This presentation addresses the limitations of existing and traditional thermal systems for finishing processes and explores the benefits of synthesizing numerous technologies for a comprehensive needs-based approach to finishing applications.

#### Seeing Infra-RED Can Make You GREEN

Josh Gilmore, Trimac Industrial Systems, LLC

We take a brief look into infrared heating technology as an environmentally friendly method of curing powder coatings and lean initiatives afforded by infrared heat that result in additional capital savings. This session will evaluate electric infrared, gas-catalytic infrared and convection heating technologies to determine the most environmental curing method.

## THURSDAY, April 4

#### 8:30 AM - 9:45 AM GENERAL SESSION

#### 8. *KEYNOTE:* Adhesion Advancements in Laser Cutting That Improve Powder Coating Performance

Al Bohlen, Mazak Optonics Corporation

Lowering costs and becoming more efficient is critical to every powder coating operation; sometimes those savings and efficiencies come from sources you may not even consider. Mr. Bohlen will be discussing the ongoing advancements of laser cutting techniques specifically designed for paint adhesion improvements. As the fabrication industry has embraced powder coating, the challenges of removing oxidation have been wide ranging. In this discussion, Mr. Bohlen will detail how new methods of laser cutting may eliminate the requirement of some secondary operations when powder coating, such as the use of abrasives, or aggressive wash stages, while lowering overall cost per part.

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#### 10:00 AM - 11:30 AM BREAKOUT SESSIONS

#### 9. Optimizing Your Powder Coating Operations

#### Suresh Patel, BASF/Chemetall John Sudges, Midwest Finishing Systems, Inc. John Cole, Parker Ionics

As with most "processes," there are many well-known and easily identified areas where optimization can translate to cost efficiencies. This session will discuss optimization opportunities specific to powder application and booths. Attendees will go home with many specific hints and things to look at in their own operations that can equate to cost savings and their bottom line.

#### 10. Automation for Today's Powder Coating Lines Part I

#### The Future of Finishing is Automation and Connectivity

#### Jeff Hale, Gema USA Inc.

Just mention "Industry 4.0" and you get a lot of varying thoughts and opinions. Regardless of the conversation, the consensus is that machine automation, communication, and data acquisition are some of the top subjects discussed. For the powder coating professional, the question is, "How will this affect me?" Within this presentation, topics discussed will include improving line management, data communication, and preventive maintenance. All of these are tools that can improve the users return on investment.

#### Process Control for the Pretreatment Industry Robert Bodak, BASF/Chemetall

Automating and maintaining key data from your pretreatment process is a key to success. Knowing which parameters can be used for process automation and developing a system that can access and alarm when these and other parameters are out of specification will alert you of potential problems before the parts leave the building. This presentation demonstrates how to "Keep the Process Visible."



### THURSDAY, April 4

10:00 AM - 11:30 AM (continued)

#### 11. Pretreatment Improvements & Cost Savings

Introduction or Improvement of a Pretreatment System Sergio Mancini, BCI Surface Technologies

What are the best ways to start a pretreatment process if you don't have one now? What are the choices in equipment and chemistries? Also, if you currently have a rudimentary pretreatment process, such as a spray wand or a small immersion line or spray washer, how can it be improved? We'll review your choices and the ramifications in both quality and costs.

#### Savings in the Pretreatment Process that Reduce Costs Before Powder Coating Application Tomasz Slezak, BASF/Chemetall

This presentation will cover possible savings in a pretreatment process. We will focus on possible savings through process optimization, changeover to thin-film technologies, reduction of carbon footprint, utilization of auxiliary equipment to extend bath life and process automation. These process improvements minimize rejects while reducing operational costs and unexpected downtime.

#### Will a Low Solids Water System Improve Your Pretreatment Process?

Gordon Johnson, Therma-Tron-X, Inc.

Water is often the most important component in many industrial processes, but often, it is not suitable in its primary existing state or as provided from municipalities. We will discuss both reverse osmosis (RO) and deionized (DI) water systems and which is right for your processing needs. We will explain why low solids water has advantages for a company's powder coating operation.

#### 1:30 PM - 3:00 PM BREAKOUT SESSIONS

#### 12. Powder Coating Non-Conductive Substrates

#### Stop, You Can't Coat That! Chris Merritt, Gema USA Inc.

"You can't coat that!" Some believe that statement when it comes to applying powder coating to a non-conductive substrate. However, new technology is energizing industries producing wood-based products. Attendees in this session will learn about new advancements in appearance and performance that are used on nonconductive substrates, as well as some of the tools used to apply these materials.

#### Plasma, Plastics and UV-Cured Powder Coating Michael Knoblauch, Keyland Polymer UV Powder, LLC

This presentation will demonstrate how plasma treating plastic and composite substrates changes surface conditions, enabling the use of UV-cured powder coating on these heat-sensitive substrates. The presentation will describe operating conditions, and surface measurements before and after plasma treating. We will describe adhesion results of UV-cured powder coating with and without plasma treating on various plastics and composites. We will conclude with an evaluation of substrate material suitability for plasma treating and UV-cured powder coating.

#### Powder Coating on Alternative Substrates

#### **Thomas Duesel and Scott Persyn**, IGP North America LLC

Alternative substrates are becoming increasingly important for powder coating – they achieve more with less. The proportion of aluminum material will decrease in the future in favor of lightweight components made of GRP and MDF, which already form the base for high-quality furniture. Powder coatings are already available for these innovative materials and other heat sensitive substrates. Benefits of these materials include ecological advantages, low cure temperatures with short cure time cycles and design protection with all the attributes that powder coatings offer.

#### 13. Automation for Today's Powder Coating Lines Part II

Benefits of Automating Industrial Finishing Door Systems

#### Zach Morrow, RollSeal

In recent years, many markets have shifted towards 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 presentation will walk through the process that goes into determining 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 from automating the door system on an existing booth or oven.

## Automation for Coating Operations – Specialty Movements

### Marty Powell, Carlisle Fluid Technologies

Automation comes in many forms. We often think of robots; many believe robots are taking jobs from workers when automation is used. This presentation will focus on other forms/concepts of automation: reciprocators, X-Y machines, indexing systems, automatic loading of ovens and other specialized conveyor movements that add automation to a process. Attendees will be given ways to automate or improve operations they may not be aware of.

#### Increasing Line Efficiency Using Robotic Pick/Place Christopher Aiken, AikenControls

The presentation will focus on the opportunity to use robotics to automate rack loading/unloading and create both optimized and consistent rack layouts. The content will center on the development of innovative rack structures that enable automatic pick and place of parts without operator intervention. In addition, there will be a review of using optimization software to dynamically create rack layouts.

#### 14. Architectural Applications

## Architectural Powder Applications in the Monumental Building Market

#### Scott Moffatt, PPG Industries

Architectural powder products in the past have been used primarily in the residential and light commercial markets. Here we will discuss the recent movement to use powder on monumental commercial buildings where powder is being specified regularly for both interior and exterior aluminum extrusion applications.

#### Vertical Powder Coating for Aluminum Extrusions Alberto Formenti, SAT S.r.l.

Aluminum extrusion powder coating with vertical plants was introduced in Europe in the 1980s, allowing for significant growth in the market share of aluminum in various applications, especially in the architecture field. Today the verticality is universally recognized as the most efficient way to coat aluminum profiles, even for small batches.

#### 3:00 PM - 4:00 PM CLOSING GENERAL SESSION

### 15. Applicators Roundtable

Michael Withers, Axalta Coating Systems

Experts from different disciplines will lead table discussions as applicators learn new ideas and techniques to take back to their shops. Topics for each table will be determined before the event by surveying registrants.

### **Registration Fees**

PCI is hosting three separate events in Orlando (Powder Coating 101 Workshop, Custom Coater Forum and Powder Coating 2019 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 2019 Technical Conference (April 3 & 4):

(April 5 & 4).

**PCI Member** \$495 through March 1 \$570 after March 1

Non-Member \$575 through March 1 \$650 after March 1

#### Member Exhibitor: \$375

#### Two-Day Technical Conference Fee Includes:

- Admission to any conference session on April 3 & 4
- Admission to the Tabletop Exhibition on April 3 & 4
- Continental breakfast, refreshment breaks & lunch during the Technical Conference
- Tabletop Exhibition reception on April 3
- One copy of conference presentations on a flash drive

### One-Day Powder Coating 2019 Technical Conference

(either April 3 OR 4):

PCI Member \$250 through March 1 \$295 after March 1

#### Non-Member

\$295 through March 1 \$340 after March 1

#### Member Exhibitor: \$195

#### One-Day Technical Conference Fee Includes:

- Admission to conference sessions on either April 3 **OR** 4
- Admission to the Tabletop Exhibition on both days
- Continental breakfast, refreshment breaks & lunch on one day
- Tabletop Exhibition reception on April 3
- One copy of conference presentations on a flash drive

## Tabletop Exhibition Only (April 3 & 4):

See Schedule of Events for Tabletop Exhibition Hours

PCI Member \$150 through March 1 \$175 after March 1

#### **Non-Member**

\$175 through March 1 \$200 after March 1

#### Tabletop Exhibition Only Fee Includes:

- Admission to the Powder Coating 2019 Tabletop Exhibition on both days
- Tabletop Exhibition reception on April 3
- Lunch on April 3 & 4

### Powder Coating 101 Workshop (April 1 & 2):

**PCI Member** No \$395 \$4

**Non-Member** \$495

#### Workshop Fee Includes:

- Powder Coating Finisher's Handbook (a \$120 value)
- Refreshment breaks on April
   1 & 2
- Networking reception on April 1
- Continental breakfast & lunch on April 2
- Workshop handouts
- Certificate of Completion

# Custom CoaterForum (April 1 & 2):PCI MemberNon-Member\$350\$450

#### Custom Coater Forum Fee Includes:

- Admission to all Custom Coater Forum Sessions
- Refreshment breaks on April 1 & 2
- Networking reception on April 1
- Continental breakfast & lunch on April 2

#### **NOTE:** Workshop and Forum registration alone **DO NOT** provide admission to the Technical Conference & Exhibition. You must register for those events separately. Discounts are available for combination reaistrations.

Save **25%** when you register for the Two-Day Technical Conference & the 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 above.

## **TABLETOP EXHIBITORS** (as of December 6)

Tabletop exhibitors are added frequently. Check our website for updates: conference.powdercoating.org

ACT Test Panels, LLC AkzoNobel Powder Coatings Axalta Coating Systems BASF/Chemetall BCI Surface Technologies BYK-Gardner USA Caplugs/Shercon *CFCM* Chemical Coaters Association International DeFelsko Corporation Digilube Systems Dinamec Systems, LLC DuBois Chemicals Elcometer, Inc. EPSI Masking Solutions Erichsen, Inc. FAMIS, Inc. Fischer Technology Inc Fostoria Process Equipment, Div. of TPI Corp. Gema USA Inc. George Koch Sons, LLC Global Finishing Solutions Heraeus Noblelight America LLC IGP North America IntelliFinishing IPCO Keyland Polymer UV Powder, LLC Menphis s.p.a. Midwest Finishing Systems, Inc. Nordson Corporation Parker Ionics The Powder Coating Institute *Powder Coated Tough*  PPG Industries Pretreatment Equipment Manufacturing, Inc. (PEM) Products Finishing Magazine Rapid Industries, Inc. Richards-Wilcox, Inc. Rohner RollSeal The Sherwin-Williams Company Therma-Tron-X, Inc. Trimac Industrial Systems, LLC Wagner Industrial Solutions



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