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TUESDAY, OCTOBER 9

Track I: Powder Coatings I INTRODUCTION TO POWDER COATING

Speakers: Bob Cregg, Sherwin-Williams; Ron Cudzilo; George Koch Sons LLC; Terry Giles, Henkel; John Cole, Parker Ionics

Time: 8:00 AM – 11:00 AM

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

ARE ALL POWDERS CREATED EQUAL?

Speaker: Rick Achterhof, Diamond Vogel
Time: 11:00 AM – 11:30 AM

This session will review the four common factors in all powders that directly affect price per pound.

COATING THICKNESS MEASUREMENT OVERVIEW

Speaker: Paul Lomax, Fischer Technology
Time: 11:30 AM – 12:00 PM

In the paint, coatings, anodize and plating industries, the importance of coating thickness measurement and conformance to regulations and standards is increasingly important. In addition to the measurements, the data must be quickly evaluated and put into reports for process improvement. Test methods and innovations will be identified for meeting industries' ultimate goals of reducing costs, lessening errors and increasing quality in the coating thickness measurement overview.

Track II: Industrial Coatings I HOW TO INCREASE FIRST TIME QUALITY BY REDUCING PAINT DEFECTS (TUTORIAL)

Speaker: Kevin Lockwood, Paint Performance Consulting
Time: 8:00 AM – 12:00 PM

When problems occur in a painting process, they cause defects that increase cycle time and add cost (not value) to the products that are manufactured. Paint defects—a.k.a.

dirt defects—are often the number one defect category that subtracts from First Time Quality (%FTQ) or % Yield measurements. This tutorial will discuss tracking, prioritizing, and correcting these paint defects as well as identifying and eliminating the root cause, proper tools to do your job effectively, and training to use these tools to analyze dirt defects.

Track III: Application Efficiency SUPERIOR APPLICATION TECHNIQUES – PART I: HOW MANUAL SPRAYERS CAN COAT IT RIGHT THE FIRST TIME EVERY TIME

Speaker: AJ Smotherman, Gema USA, Inc.
Time: 8:00 AM – 8:30 AM

For many operators deciding how to maximize powder coating coverage and transfer efficiency are a challenge. This presentation will cover performance techniques suitable for all brands of manual spray powder guns and will review tip selection, coating techniques, and how to address recoats and metallic powders.





SUPERIOR APPLICATION TECHNIQUES –PART II: BEST PRACTICES FOR AUTOMATIC POWDER COATING

Speaker: Phil Flasher, Gema USA, Inc.

Time: 8:30 AM – 9:00 AM

For many finishing line managers and operators, maximizing performance of the powder coating line is a challenge. This presentation will cover best practices for automated powder coating lines, including information on gun placement, orientation, and other techniques for improved optimization.

CYBEX INTERNATIONAL: A CASE STUDY

Speaker: Jeff Hale, Gema USA Inc.

Time: 9:00 AM – 9:30 AM

Cybox International, a manufacturer of premium commercial fitness equipment located in Medway, Massachusetts, has used powder coatings as their preferred finish for several years. Much like other manufacturers who produce premium products, Cybox maintains a high standard for finished quality and appearance. This session will explore the result of their decision to upgrade their finishing line and summarize the resulting impact on the company.

CASE HISTORY: BALDOR CORPORATION'S CONVERSION FROM LIQUID TO POWDER COATING

Speaker: Loren Smeester, Nordson Corporation

Time: 9:30 AM – 10:00 AM

Faced with a challenging growth target of 5% per year over a 5-year period, Baldor Corporation's Oshkosh, Wisconsin, facility faced numerous challenges, such as restrictions in throughput and finish quality that was not up to Baldor's expectations. This presentation will detail the Baldor team's search for the best solution, why powder coating was chosen, the system configuration that best suited their needs, and how it met their goals and objectives.

CASE HISTORY: HOW ELITE FENCE PRODUCTS UPGRADED TO FAST COLOR CHANGE IN A CARTRIDGE BOOTH SYSTEM

Speaker: Mike Riley, Nordson Corporation

Time: 10:00 AM - 10:30 AM

Elite Fence Products manufactures and powder coats ornamental aluminum and steel fencing, railing, estate gates, and commercial sliding gates that meet or exceed AAMA 2604 specifications. This presentation will detail how innovatively combining elements of two different booth technologies, cartridge and cyclone, possibly once considered as mutually exclusive, provided a cost-effective way for Elite Fence to achieve faster color change.

POWDER SEPARATION EFFICIENCIES: THE UN-FILTERED STORY

Speaker: Chris Merritt, Gema USA, Inc.

Time: 10:30 AM – 11:00 AM

If powder coating spray guns were capable of applying 100% of what was sprayed, then there would be no need for a powder coating spray booth. But, the reality is that powder overspray is generated; and therefore containment of the over sprayed powder is required. This session will provide an overview of the various types of recovery methods for powder coating. Additional topics covered include airflow design, various types of media used for filtration, design orientation, as well as benefits to a powder coating operation.

FACTORS AFFECTING FAST COLOR CHANGE

Speaker: Ken Kreeger, The Powder Coating Institute

Time: 11:00 AM – 11:30 AM

More and more powder coaters are looking at fast color change systems. This presentation will look at the variables that affect fast color change with a cyclone system. The three main areas being: delivery equipment, recovery equipment, and recycle equipment. Understanding these factors and the related equipment and technology developments will provide helpful ideas and insights on how to improve your color change process.

WHAT LIQUID APPLICATION EQUIPMENT BEST SUITS MY NEEDS?

Speaker: Robert Tesmer, Wagner Industrial Solutions

Time: 11:30 AM – 12:00 PM

Discussion will cover the types of liquid application equipment that are available and will discuss how to choose the correct one for your application. Discussion will touch on transfer efficiency, ease of use and advantages of one technology over another for specific applications.

Track IV: Surface Preparation INNOVATIONS IN PRETREATMENT - ADVANCED NON-PHOSPHATE PRETREATMENTS

Speakers: Suresh Patel, Chemetall

Time: 8:00 AM – 9:00 AM

Phosphorous and heavy metal discharge restrictions are becoming more widespread. Non-phosphorous pretreatments are viable alternatives. They have the advantages of ambient temperature operation, produce no sludge, are simple to operate and waste treat, and they save money. The latest generation has performance approaching or matching zinc phosphate. Practical aspects of transitioning to Advanced Pretreatments will be discussed.

DEVELOPMENT & IMPLEMENTATION OF A MULTI-METAL NON-CHROME PROCESS

Speaker: Jane An, Deft, Inc.

Time: 9:00 AM – 9:30 AM

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During this session, you will hear about a multimetal cleaning and surface treatment process that has been successfully applied at Daimler Trucks of North America—Gastonia, N.C. The process consists of a cleaner and conversion coating that are entirely non-chrome and operates at room temperature. The implementation steps, SEM characterization, performance data, and understood benefits for Daimler will be presented.

ADVANCES IN ZIRCONIUM/PHOSPHATE-FREE TECHNOLOGIES

Speaker: Sergio Mancini, Bulk Chemicals
Time: 9:30 AM – 10:30 AM

The “Advanced Pretreatments” or “Zirconium-based” nanotechnologies have had challenges in some systems with carry-over contamination from alkaline cleaners, flash rust on

parts, and excessive iron build-up in the bath. These new pretreatment technologies not only eliminate these issues but also provide the customer the ability to declassify his pretreatment process—and do it in fewer stages.

IMPORTANCE OF CLEANING & RINSING

Speaker: Suresh Patel, Chemetall
Time: 10:30 AM – 11:00 AM

This session will focus on different cleaning technologies (mechanical & chemical primarily) and issues specific to the parts cleaning industry. It will provide a foundation of critical terminology used to enable intelligent decisions in the selection, design, installation, and upgrade of a cleaning system. Highlighted topics include soils, substrates, cleaners, rinsing and drying, and the means to verify the cleaning and rinsing effectiveness. Process automation, safety, troubleshooting, and preventative maintenance of process equipment will also be covered.

CONVERSIONS TO GREEN PRETREATMENTS—CASE STUDIES

Speaker: Chris Berger, Calvary Industries
Time: 11:00 AM – 11:30 AM

As the frenzy to convert to non-phosphate and more environmentally friendly pretreatments increases, users are finding that these technologies are not drop-in replacements for traditional chemistries. This presentation will discuss the successes and trials of converting to greener and more sustainable pretreatment technologies.

WEDNESDAY, OCTOBER 10

Track I: Powder Coatings II ADVANCED POWDER COATINGS

Speakers: Rodger Talbert, Talbert Consulting; Mike Thies, Gema USA, Inc.; Steve Houston, TCI Powder
Time: 8:00 AM – 11:00 AM

This session gives you an in-depth look at proper powder selection, pretreatment options, both mechanical and chemical, application equipment, including reclamation, drying, and curing of powder coatings, as well as quality control and troubleshooting a powder coating operation.

A PRACTICAL APPROACH TO MANAGING ELECTROSTATIC PROBLEMS AND HAZARDS DURING POWDER PROCESSING

Speaker: Muhammad Qureshi, Ph.D., Chilworth Technology, Inc.
Time: 1:00 PM – 2:00 PM

This presentation will discuss the practical measures that should be considered to prevent and control electrostatic problems and ignition hazards that are associated with charge generation and/or accumulation on powders during processing.



SMALL- TO MID-VOLUME WORKSHOP

Speaker: Ken Kreeger, The Powder Coating Institute; Nick Liberto, Powder Coating Consultants
Time: 2:00 PM – 3:00 PM

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 as well as understand how capital and operational costs can be affected.

Track II: Industrial Coatings II CYCLIC ACCELERATED CORROSION TESTING

Speaker: Brian Smith, Assured Testing Services
Time: 8:00 AM – 8:30 AM

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. This presentation 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.

UNCOMMON CORROSION TESTING METHODS FREQUENTLY ENCOUNTERED

Speaker: Brian Smith, Assured Testing Services
Time: 8:30 AM – 9:00 AM

Nearly everyone in the coating industry is familiar with ASTM B117 Salt Fog Corrosion Testing, but there are frequently encountered "uncommon" corrosion test methods of which coating and finishing professionals should be aware. This presentation will introduce attendees to "uncommon" corrosion test methods, including "Prohesion," "Corrodokote," "Kesternich," "CASS," "AASS," "SWAAT," and others, explaining what each test method entails, typical corrosion effects on samples, the product markets generally served by these methods, and typical testing duration and turnaround requirements.

THE TRUTH ABOUT PRODUCTION LINE GAPS AND HOW CURRENT CONVEYOR TECHNOLOGIES ADDRESS THEM

Speaker: David Underhill, IntelliFinishing
Time: 9:00 AM – 10:00 AM

The objective of this session is to understand the causes and ramifications of line gaps and how new technologies are addressing the problem. This session will highlight new advancement in conveyor technology that address line gaps issues and open a host of options and capabilities in system design and productivity.

LASER-CURED POWDER COATING OF LARGE-SCALE STRUCTURES

Speaker: Mark Poullos, PhotoFusion
Time: 10:00 AM – 10:30 AM

Advances in the use of laser technology to cure powder coat paints is explored. The advantages of using laser powder coating, two application system options, and economical benefits will also be discussed.

PIPELINE FIELD COATINGS

Speaker: Frank Rampton, Trenton Corporation
Time: 10:30 AM – 11:00 AM

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

Track II (Afternoon): New Generation Training Techniques USING VIRTUAL REALITY TO HELP TEACH APPLICATION TECHNIQUES

Speaker: Matthew Wallace, VRSim, Inc.
Time: 1:00 PM – 1:30 PM

Virtual paint training systems are a needed and valuable addition to teaching methods. As the accuracy and complexity of simulations improve, the industry has begun to exploit this fusion of simulation and education. This presentation explores the next step – how to use the simulation to increase student engagement, enrich their skills development, and improve the trainees' knowledge base.

WHY DIDN'T YOU READ THE MANUAL? USING THE IPAD TO SOLVE YOUR DOCUMENTATION PROBLEM

Speaker: Trace Steffen
Time: 1:30 PM – 2:30 PM

Increasingly complex technology, pressures from human resources and environmental regulation, and the staggering cost of the liability fallout when things go wrong have made properly managed documentation, standard operating procedures, and training materials a requirement for doing business. As stakes creep higher, technicians and customers require more training to understand how to apply coatings and operate equipment with maximum efficiency. This session focuses the use of new technologies used such as the iPad. Using the Apple iPad, attendees will learn how to navigate through a

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multi-touch system, video, and 3-D graphics to learn the exact procedures required to execute a task. The session will also highlight the use of exciting new tools at two new state-of-the-art advanced manufacturing training centers.

Track III: Architectural Coatings ARCHITECTURAL APPLICATIONS FOR LIQUID & POWDER FLUOROPOLYMER COATINGS (1 AIA CEU)

Speaker: Scott Moffatt, PPG
Time: 8:00 AM – 9:00 AM

Participants will gain and understand the advantages of liquid and powder coatings for use on architectural aluminum building components; learn about the environmental considerations and performance requirements of liquid and powder coatings; and gain a better understanding of color availability, gloss retention, and cost considerations for liquid and powder coatings.

ARCHITECTURAL COATINGS – POWDER PRIMERS FOR COMPOSITE MATERIALS

Speaker: Robert Langlois, Robert Langlois Consulting
Time: 9:00 AM – 9:30 AM

With the advance of new materials, such as 100% recycled PET material composites now being used in the construction materials market, the need for new coating solutions and new eco-friendly coating systems becomes more relevant. This session will review the technical challenges of such powder coatings for heat-sensitive PET substrates, as well as review the powder technologies required and the performance characteristics achieved with the pretreatment and powder application. Additionally, other considerations such as costs of liquid vs. powder and a summary of the pros and cons of each technology will be discussed.

PVDF FLUOROPOLYMER POWDER COATINGS FOR EXTERIOR USES

Speaker: Roger Pecsok, Fluoro Powder

Processing
Time: 9:30 AM – 10:00 AM

PVDF-based coatings are particularly well suited for exterior architectural uses, owing to superior resistance to weathering. Warranties of 40 years covering chalk and fade resistance are typical of PVDF coatings. Powder coatings of PVDF offer the added benefits of a thicker and harder coating as well as no VOCs to contend with during application. Recent modifications to improve certain characteristics of the PVDF powder coatings will be discussed with reference to specific applications.

TRENDS IN COLORANTS REQUIREMENTS FOR ARCHITECTURAL COATINGS

Speaker: Romesh Kumar, Clariant Corporation
Time: 10:00 AM – 11:00 AM

Competition and environmental regulations have challenged the architectural paint makers to look into innovative ways

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to improve their old usual colorant systems. The improvements to meet hiding, low (almost zero) VOC, high durability, and cost reduction requirements can be achieved through four steps. These steps will be thoroughly discussed during this session.

A GREEN ALTERNATIVE FOR SURFACE FINISHING – POWDER COATING (1 AIA CEU)

Speaker: Manny Mayer, TIGER Drylac
Time: 1:00 PM – 2:00 PM

This presentation will familiarize you with powder coating technology and provide insight into its environmental, economic, and mechanical advantages vs. conventional liquid coating systems. It will also introduce you to the latest developments and technologies available in the industry. All in all, this session will give you an understanding of what environmentally friendly powder coatings can do for your future projects.

CONVERSION COATINGS FOR HIGH-PERFORMANCE ALUMINUM (1 AIA CEU)

Speaker: Bob Cregg, Sherwin-Williams
Time: 2:00 PM – 3:00 PM

Learning objectives of this course includes the architectural market, purpose and process of conversion coatings, chromium phosphate, non-chrome systems, how coatings fail, performance testing, and environmental initiatives.

Track IV: Sustainability, Cost Control & Reduction

ANTI WELD-SPATTER COATINGS – REDUCTION OF PART REWORK TIME AND EQUIPMENT MAINTENANCE TIME RELATED TO WELD-SPATTER

Speaker: Rachel Nashett, Henkel
Time: 8:00 AM – 9:00 AM

Pivotal to manufacturing success is producing high quality parts as quickly and cost effectively as possible. Many production facilities rely heavily on welding to join metal substrates for both small- and large-scale parts. Introducing anti-weld spatter coatings into the welding process can improve part throughput-time, appearance, reduce part rework-time, and improve equipment maintenance. Innovations in chemical antiweld spatter coatings can improve a manufacturing facility's processes and provide cost savings.

SUSTAINABILITY INITIATIVES IN PAINT OPERATIONS

Speaker: Amith Pinapala
Time: 9:00 AM – 9:30 AM

This session covers sustainability initiatives for installing a sensor system to shut the pumps off on stages where treatment is not required, lift assists, fall protection, nitrogen cutting of sheet steel, masking, cleanability of substrate, pack quantity, E-Coat readers, corrosion testing performance and results, investing in computer hardware, control plan for paint aesthetic standards, powder contamination and more.

ESTIMATING AND REDUCING YOUR COATING SYSTEM'S OPERATIONAL COSTS

Speaker: Nick Liberto, Powder Coating Consultants
Time: 9:30 AM – 10:30 AM

Calculating your coating system's operational costs can be difficult, especially in large, complicated processes. However, this is the first step you must take to determine which areas of your coating process are the most costly and what actions can provide the best savings. This session will discuss how to estimate your total operational costs and the tools that are available to simplify this process.

YOUR CHILLER PLANT IS WASTING MONEY – THE FLAWS OF TRADITIONAL CHILLER PLANT DESIGN AND OPERATION & HOW TO FIX THEM

Speaker: Mike Flaherty, Tekworx
Time: 10:30 AM – 11:00 AM

Traditional chilled water system mechanical design goals and control strategies have focused solely on delivering sufficient cold water on the hottest day of the year with little consideration of efficient cooling production. Energy reduction efforts by facility manager have also overlooked cooling production efficiency in favor of reducing cooling demand. Chiller plant optimization thus remains an overlooked opportunity for operating cost reduction. Increased efficiency also directly increases usable capacity of the existing system, thus avoiding the cost of new equipment otherwise required for expansion or redundancy. This presentation is intended to equip attendees with basic knowledge to assess current system operation, identify optimization opportunities, and evaluate the potential project cost and payback through energy savings.

CASE HISTORY: MESTEK INCORPORATED GOES GREEN WITH A FAST COLOR CHANGE POWDER SYSTEM

Speaker: Larry Fenik, Nordson Corp.
Time: 1:00 PM – 2:00 PM

Mestek, Incorporated manufactures baseboard registers. As part of a "green initiative" the company had been searching for a more environmentally friendly coating process than their liquid omega loop system. Not being totally familiar with powder coating, Mestek's VP of Operations visited the 2010 North American Industrial Coating Show in Indianapolis to learn more about the current powder coating

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technology, equipment, and materials for himself. This presentation will detail their journey and discuss the results they were able to achieve with their new powder coating system.

GETTING THE MOST OUT OF YOUR EXISTING PAINT SYSTEM

Speaker: John Carlson, Nordson; David Yelverton, Midwest Finishing Systems

Time: 2:00 PM – 3:00 PM

Not every company can afford to do a complete finishing system replacement. This presentation will discuss ways companies can upgrade pre-treat, coating and curing equipment and technologies for more efficient operation, higher throughput, improved material utilization and lower overall operating costs.

THURSDAY, OCTOBER 11

Track I: Specialty Coatings

PROJECT UPDATE ON UV POWDER COATINGS FOR AEROSPACE

Speaker: Chris Geib, SAIC (Science Applications International Corporation)

Time: 8:00 AM – 8:30 AM

Powder coatings produce a superior durable coating while reducing or eliminating hazardous air pollutants. They are generally classified as non-hazardous waste, have little (if any) disposal or compliance costs, and eliminate volatile organic compounds (VOC) paint emissions. The Ultraviolet Cure Powder Coating (UVCPC) project funded by ESTCP is now in the component coating and field-testing phase. This presentation is focused on bringing those following this project up to speed on the technology.

UV CURE POWDER OFFERS NEW OPPORTUNITIES FOR FINISHING HEAT-SENSITIVE SUBSTRATES

Speaker: Michael Knoblauch, Keyland Polymer

Time: 8:30 AM – 9:00 AM

Consumers and markets are demanding products that are sustainable, high quality, and cost effective. UV-cure powder coatings can meet these requirements, providing the opportunity to finish substrates previously thought impossible with powder coatings. This session presents an overview of UV-cure powder chemistry and application technology and will focus on how combining UV-cure powder coating chemistry with design requirements produce products of exceptional value.

ANTIMICROBIAL POWDER COATINGS – GETTING UNDER

THE SURFACE

Speaker: Duane Wilson, DuPont Powder Coatings

Time: 9:00 AM – 9:30 AM

In this session, we will discuss the benefits of antimicrobial powder coatings, how the coatings work, advantages of inorganic active ingredients, and end-use applications. New efficacy test data will be included along with details on establishing a testing protocol.

SPRAYABLE CERAMIC COATINGS

Speaker: Rachel Nashett, Henkel

Time: 9:30 AM – 10:30 AM

Preventive and scheduled maintenance are critical to maximizing the function of industrial equipment. Epoxy-based, wear-resistant, sprayable ceramic coatings are solutions which can help minimize planned and unplanned downtime of industrial equipment and systems. Sprayable ceramic coatings, a two-part epoxy-based coating, are sprayed onto metal components to create relatively smooth, low-friction surfaces that improve equipment efficiency and life expectancy.

POWDER PRIMER AND TOP COAT FOR AGRICULTURAL APPLICATIONS TAKE A DYNAMIC STEP FORWARD

Speaker: Marty Vincens, Nordson Corp.

Time: 10:30 AM – 11:00 AM

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Powder primer is becoming specified by some agricultural equipment companies. This presentation will discuss equipment, system layout, process, and powder material technologies that make spray applied powder primer a viable alternative to the conventional e-coat process.

Track II: Operator Training for Finishing Operations

HOW TO COMPLY WITH NESHAP 6H REGULATIONS BY REDUCING FINISHING COSTS THROUGH TECHNOLOGY AND TRAINING

Speaker: Michael V. Michalski, Advanced Finishing Technologies

Time: 8:00 AM – 2:00 PM

This training session will include an introduction to NESHAP's 6H Rule, include Q&A on NESHAP 6H, discuss reducing costs and waste while improving productivity and quality, as well as review an operator training program for finishing operations.

Track III: Coatings for Military Applications ELIMINATING HEXAVALENT CHROMIUM COMPOUNDS IN MILITARY AND AEROSPACE COATINGS WITH INNOVATIVE POWDER COATING TECHNOLOGY

Speaker: Kevin Biller, The Powder Coating Research Group

Time: 8:00 AM – 9:00 AM

Both the military and the aerospace industries have sought non-chromium-containing coating technology to meet their stringent performance requirements. Liquid coating technology has made modest gains to meet this objective. Recent innovations in powder coating technology have delivered high-performance coatings that meet or exceed military and aerospace requirements. This session will describe these new technologies that include both thermosetting and UV-curing techniques.

ADVANCEMENTS IN MILITARY COATINGS

Speaker: Beth Ann Pearson, Sherwin-Williams

Time: 9:00 AM – 9:30 AM

The United States Department of Defense places a heavy emphasis on environmental advancements for the coatings that are used across all areas in the military industry, while continuing to require exceptional performance and durability. This session will discuss four areas of technology that represent environmental focus while maintaining a strong emphasis on supporting the DoD's Corrosion Prevention and Mitigation Strategic Plan.

A GREEN WASH PRIMER THAT IS VOC-FREE, HAP-FREE, AND CHROMATE-FREE

Speaker: Danqing (Maggie) Zhu, Ecosil Technologies, LLC

Time: 10:00 AM – 10:30 AM

Although traditional wash primers, such as DODP-15328D used by the U.S. military, have excellent performance, their formulations are environmentally undesirable due to the considerable amount of hexavalent chromium (Cr6+, a well-known human carcinogen) in the form of 7.1% zinc chromate and 6.5 lb/gal VOCs and HAPs in them. This has become a driving force for the DoD to find effective and environmentally safe alternatives to DOD-P-15328D. This session discusses recent developments that demonstrate the excellent corrosion protection performance on multiple metals, such as carbon steels and aluminum alloys, under various military primers and topcoats. The U.S. DoD is proceeding with field-testing of this product under other programs currently under way and planned. Relevant test results and performance will be discussed in this session.

Track IV: Technical Forum

TECHNOLOGY FOR IMPROVING DEGASSING IN POWDER COATINGS

Speaker: Steve Thompson, Lubrizol

Time: 8:00 AM – 8:30 AM

For many years formulators have been challenged to improve the overall degassing properties of powder coating systems under a variety of unique application conditions. Historically benzoin has been the product of choice due to its overall performance characteristics and reasonable price point. However, it's not unusual to routinely need an additional additive to optimize the appearance and ultimately the interstitial integrity of a high-quality finish. This session will review some of the shortcomings of benzoin and then examine the raw materials and criterion considered in a comprehensive degassing study utilized to maximize the visual appearance of a few fully formulated systems used in powder coating applications.

COMPLIANT POWDER COATINGS HAVE MORE TO OFFER THAN BEING "GREEN"

Speaker: Tony Pledger, EMS Griltech

Time: 8:30 AM – 9:00 AM

The topic of hydroxyalkylamide (HAA) powder coatings evokes much discussion and opinion in North America. Often that opinion is less than complimentary. However, perceptions can be misleading and the HAA chemistry offers far more than appears on the surface, excusing the pun. HAA is often perceived as a novelty but this is far from the reality. It is now used extensively across the Americas, Europe, and Asia Pacific. This session aims to challenge powder coating applicators to embrace HAA. Not to change for change's sake, but to realize the full potential benefits this chemistry has to offer.



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BIO-BASED POLYAMIDE 11 POWDER COATINGS FOR HIGH-PERFORMANCE APPLICATIONS

Speaker: Agustin Xocnostle, Arkema, Inc.

Time: 9:00 AM – 9:30 AM

As consumers become more environmentally conscious, companies are expected to provide more eco-friendly solutions to products and services that can maintain high quality and performance levels. This is particularly difficult in coatings for applications in demanding markets such as automotive, domestic appliances, outdoor furniture and medical devices, where high adhesion, as well as chemical, weathering, corrosion and impact resistance is required, while maintaining an aesthetical appearance. This session will discuss Polyamide 11 powder coatings, which are based on the chemistry of amino-11 that is synthesized from castor oil, obtained from the castor bean, a non-edible crop that does not compete with food production.

INNOVATIVE EFFECT PIGMENTS FOR POWDER COATINGS: PURE GOLD AND CHAMPAGNE SHADES WITH HIGH DURABILITY

Speaker: Roland Albert, Eckart GmbH

Time: 9:30 AM – 10:00 AM

Areas that are exposed to weathering are highly interesting and important fields for applications of metallic effect pigments for powder coatings. Ideally, the first priority is for the effect pigments incorporated into the powder coating have properties that promote chemical and weather resistance. Various technologies for the surface protection of pigments are used in order to adequately meet these high requirements. At the same time, great importance is attached to impressive optical characteristics, for example metallic gloss,

color purity, and hiding powder. This session will discuss the disadvantages of mica pigments and new advanced encapsulation technologies leading to functional and attractive pigments for powder coatings in gold, champagne, and copper shades.

INORGANIC PIGMENTS ADD LIFE TO POWDER COATINGS

Speaker: Dr. George Podolsky, Rockwood Pigments

Time: 10:00 AM – 10:30 AM

Inorganic pigments such as iron oxides and mixed metal oxides are known for their UV stability, excellent weatherability, and chemical inertness. Inclusion of these pigments in powder coatings formulations, especially with extended durability requirements, is an excellent approach to ensure the integrity and appearance of one's system. This presentation will focus on incorporation of these pigments in powder coatings with weathering data presented for several popular colors. In addition, characterization methods for studying dispersion effectiveness in powder coatings systems will be reviewed.

FUNCTIONALIZED SILICONE CARBIDE WHISKER FOR HIGH-PERFORMANCE COATINGS

Speaker: David Mammarella, Advanced Composite Materials, LLC

Time: 10:30 AM – 11:00 AM

For many years formulators have been challenged to improve the overall degassing properties of powder coating systems under a variety of unique application conditions. Historically benzoin has been the product of choice due to its overall performance characteristics and reasonable price point. However, it's not unusual to routinely need an additional additive to optimize the appearance and ultimately the interstitial integrity of a high quality finish. This session will review some of the shortcomings of benzoin and then examine the raw materials and criterion considered in a comprehensive degassing study utilized to maximize the visual appearance of a few fully formulated systems used in powder coating applications.





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*As of September 1, 2012

