2001 AIMCAL Fall Technical Conference
15th International Vacuum Web Coating Conference
October 22-24, 2001
Crowne Plaza Resort
Hilton Head Island
South Carolina
USA
Web Coating Sessions

Session 1A: Regulatory/Productivity Issues- (Blue Dividers)

Chemical Update  
Ingrid Brase, National Starch

MACT Implementation  
Ingrid Ward, USEPA

Reducing Energy Consumption on Process Ovens & Oxidation Systems  
Fred Horn, MEGTEC

Design for Manufacturing Utilizing Modeling and Optimization to Reduce Waste  
Nancy Dibella, Eastman Kodak

Six Sigma Control on Coating Operations  
Jim Wheeler, WESEECE

Savings in Waste Management  
Jim Hebert, FLEXcon

Session 2A: Coating Measurement and Application- (Light Green Dividers)

The Use of Capacitive Non-Contact Thin Gap Sensors in Controlling Coater Gap Uniformity  
Bryan Manning, Capacitec

Beta Gauge Measurement  
Ted Schnackertz, NDC Infrared Engineering

Slot Die Coating Methods  
Jeff Seckora, Extrusion Dies, Inc.

Slot Die, Processing Advantages on Thin Gauge Films  
Mike Augustine, Cloeren

Session 3A: The Web... Properties, Equipment, Control of... - (Yellow Dividers)

A Converter's View of Film Properties  
Neil Steinberg, Somerset Engineering

Tension Controls  

Baggy Webs: Making, Measurement and Mitigation Thereof  
David R. Roisum, Finishing Technologies

Secrets of a Level Process and Product  
David R. Roisum, Finishing Technologies

Principles and Uses of Roll Coating Equipment  
John Pasquale III, New Era Converting Machinery

Importance of Rubber Rolls to Your Process  
Stephen C. Huff, ABBA Rubber

Heated Rolls  
Bruce Hyllberg, American Roller Co.
Table of Contents

Vacuum Web Coating Sessions (Continued)

Session 4B: Process and Related Topics (cont.)- (Pink Dividers)

Panel Discussion - Coatings For Security Applications
Paolo Raugei, Galileo Systems
Angelo Yializis, Sigma Technologies

Characterization of the Optical Properties of SiO2 Deposited by Microwave Enhanced PECVD in a Roll Coater
Rick Shimshock, Southwall Technologies

The Utilization of Plasma Treatment in the Production of Optical Coating for Security Programs
Nadir A.G. Ahmed, Valmet

Simple Approaches to Quantifying Mechanical Behavior of Metallized Coatings
William W. Gerberich, Univ. of Minnesota

Advances in Metallizer Technology
Bill Duckham, Valmet

Session 5B: Process and Related Topics (cont.)- (Gold Dividers)

Metallizing Statistical Process Control – Tutorial
Eldridge Mount, EMMount Technologies

Automated Inspection of Coated Webs
Timothy Potts, Dark Field Technologies

Investigations About the Wetting Behavior of Intermetallic Evaporation Boats
Ulrich Schmoll, Sintec

Metallized Papers and Films Market Update
Cory Reardon, AWA Associates

Technologies Practical Applications of Automation for Vacuum Web Coating
Robert Mah, RM Systems

Custom Polymers for Improved Transfer Printing and Metallization
George Schmitz, Dock Resins Corp.

Acrylic Polymers in the Metalized Paper Market
Gary Warehime, Dianal America, Inc.
# Table of Contents

## Web Coating Sessions (Continued)

### Session 4A: Surface Enhancements; Electrical, Chemical, Thermal- (Pink Dividers)

- Corona Treating: Added Energy for Improved Coating Applications  
  Tom Gilbertson, Enercon Industries Corp.
- Aqueous Priming as a Surface Pretreatment for UV Printing and Coating  
  Virginia Cushing, Mica Corporation
- Treating Flexible Films with Primers  
  Rob Byrd, Rohm & Haas
- Release Coating Market Update  
  Cory Reardon, AWA Associates
- UV Silicone Release Coatings  
  Gary Freelin, Goldschmidt Chemicals
- Enhancing Coated Surfaces, Drying Length & Economics Through Use of Infrared & Infrared / Convection Drying  
  Richard Wimberger, C.A. Litzler Co., Inc.
- Electrostatic Hazard Risk Management  
  William Emmes, Ion Systems

### Session 5A: Defects Workshop - (Gold Dividers)

- Creative Problem Solving  
  David R. Roisum, Finishing Technologies
- Defect Characterization; Techniques  
  Edward Cohen, Edward Cohen Consulting
- Support Defects  
  Neil Steinberg, Somerset Engineering
- Panel Discussion - “My Favorite Defects”  
  Edward Cohen, Edward Cohen Consulting  
  Tim Potts, Dark Field Technologies  
  David R. Roisum, Finishing Technologies  
  Neil Steinberg, Somerset Engineering
Table of Contents

Vacuum Web Coating Sessions

Plenary Session – (Orange Divider)
Functionalization of Surfaces Using Vacuum Polymer Coatings
Angelo Yializis, Sigma Technologies International

Session 1B: Equipment and Related Topics - (Blue Dividers)
PVD Process technology in a Continuous Pilot line for innovative Steel Strip Coating
Ulf Seyfert, Von Ardenne Anlagentechnik GmbH
New Multi-Drum Web Coaters for Sputtering Deposition
Edgar Yadin, Sidrabe Inc.
Performance of Solar Reflective Materials Produced by a Laboratory Scale Roll-Coater
Cheryl Kennedy, National Renewable Energy Laboratory
Sputtering Anti-reflective Layers with the New Multiweb Machine Concept Using Computer Aided Recalculation
Hans-Georg Lotz, Applied Films Inc.
Production of Thin Film Electronics Using Roll to Roll Processing
Michael Sauvante, Rolltronics

Session 2B: Equipment and Related Topics (cont.)- (Light Green Dividers)
Optical Coating Performance: Design, Manufacture, Measurement, and Application
Angus Macleod, Thin Film Center Inc.
New Magnetically Enhanced Plasma Source Opens Doors for an Array of Flexible Web Applications
Durable High Barrier Metallized Films
Wolfgang Decker, Toray Plastics (America), Inc.
Machine and Process Preventive Maintenance of Vacuum Roll Coaters
Andreas Weis, Applied Films Inc.

Session 3B: Process and Related Topics - (Yellow Dividers)
Poisoning During Sputtering of an Al-Target in a Mixture of Ar and O2
R. De Gryse, State University of Gent, Department of Solid State Sciences
Sputter-Roll-Coater for Production of Optical Multilayers
Johannes Struempfel, Von Ardenne Anlagentechnik GmbH
Characterization of Silver-Based Solar Control Multilayer coatings for Architectural Windows
Raul J. Martin-Palma, Universidad Autónoma de Madrid
Characterization of Optical Pigments
Roger W. Phillips, Flex Products
Visual and Instrumental Color Characterization of Goniapparent Interference Pigments
Mike Nofi, Flex Products
Web Coating Formation of Anti-reflection Film on Flexible Substrates by Evaporation
Haruo Uyama, Toppan Printing Co., Ltd
Monitoring and Process Control in Roll Coating
Bill Kittler, Innovative Specialty Films
Gas Barrier Properties of Metal Oxide/Polymer Composite Films
B.M. Henry, University of Oxford