# 2013 TAPPI Tissue Properties & Manufacturing

April 27-28, 2013 Hyatt Atlanta Downtown, Atlanta, Georgia USA

### TISSUE PROPERTIES COURSE SCHEDULE

## Saturday, April 27, 2013

8:00am – 8:30am Welcome, Introductions of Participants, Course Objectives 8:30am -10:00am Tissue /Towel Properties, Michael J. Kocurek, NC State • Structure of Tissue: Bulk, Fiber Orientation, Formation, Multi-Layering • Physical Tests and What They Mean: Softness, Absorbency, Strength; Fundamentals Affecting Properties Softness Panel Testing, Softness Prediction Models 10:00am -11:00am Fiber Sources and Properties, Michael J. Kocurek • Types of Fibers for Tissue and Toweling: Hardwoods, Softwoods, Chemical, Mechanical, Recycled Pulps Challenges with Recycled Fibers & Pulp 11:00am-noon Stock Preparation Refining for Tissue LUNCH Noon - 1:00pm 1:00pm - 3:30pm Tissue Wet End Chemicals, Lucyna M. Pawlowska, Kemira • Wet End Chemicals, Retention and Drainage Aids Dry Strength & Wet Strength, Permanent & Temporary • Control of Deposits and Stickies, Defoamers Debonders and Softeners, Absorbancy Aids Bruce Janda, InnovaSpec 3:30pm -5:30pm Tissue Wet End Operations, Approach Systems • Crescent, Twin Wire (C), SBR, Tissue & Toweling Formers Towel Fourdrinier Forming Tissue Headbox Design Variables, Multi-layering, Dilution Headboxes Generation of Microturbulence Slice Geometry, CD Profile

Jet/Wire Velocity, MD/CD Orientation

Microturbulence & Formation

5:30pm ADJOURNMENT

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#### **Sunday, April 28, 2013**

8:00am –10:30am Tissue Machine Forming and Wet Press Fabrics, *Peter McCabe, Roger* 

Banks, William Bonds, Asten Johnson

Terminology, Functionality, and Selection Criteria

• Improvements in Fabric Design & Benefits for Tissue

Role of the Fabric in Forming and Pressing

Cleaning and Conditioning Fabrics

10:30am –12:00pm Structured Tissue

• Role of the Fabric in Creating Structured Tissue, *Peter McCabe*,

Asten Johnson

• Wet Forming Technologies, Bruce Janda

12:00pm – 1:00pm LUNCH

1:00pm – 2:00pm Tissue Drying, Bruce Janda

Yankee Dryers, Hot Air Hoods

Through Air Drying(TAD)

2:00pm–3:30pm Creping and Yankee Coatings and Chemicals, *Lucyna M. Pawlowska* 

Adhesives, release chemicals, MAP

Applications & Chemistry

3:30pm–5:00pm Creping and Doctor Blades, *Jeff Peters, BTG* 

 Geometry Variables(blade & impact angels, bevel, height, pressure, thickness, material, wear)

Effects of creping variables on tissue structure and properties

5:00pm–5:30pm Calendering & embossing effects on properties, *Michael J. Kocurek* 

Course wrap up

5:30pm ADJOURNMENT