

2014 CORRUGATED BOX AND LINERBOARD MEDIUM MANUFACTURING COURSE SCHEDULE

Day 1 Monday, May 12

8:00 – 8:30

Welcome, Introductions, Survey Results
Learning Objectives, Course Schedule

8:30 – 12:00

Introduction to Corrugated

What is Corrugated
Flute Types
Web Types
Basis Weights

Corrugated Sequence

Single-Face
Double-Face

What is a Corru”GATOR” Corrugator

Series of Machines designed for
Continuous running
Corrugator Types
Divided into two main groups
Broken into Zones

12:00 – 1:00 LUNCH

1:00 – 5:00

Introduction to Mechanics of the Bond.

Heating Paper
Moisture content
Paper & Combined Board
Bonding Terms
5 Steps to a Mechanical Bond
Bond Window and Variables

Moisture Control

Heat Transfer Tension and Time
4 Key Variables for proper heat transfer
Alignment

Board Quality inspections (Operator) and Trouble-Shooting

5:00 Adjournment

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Day 2 Tuesday, May 13

8:00 – 12:00

Linerboard & Medium Performance Properties & Tests

Optimizing Quality and Runnability

Sheet Structure & why it's important

Properties & Tests, and what contributes to their values:

Stiffness, Ring Crush, Mullen, Concora

Edgewise Compression Test, STFI

Tensile, Modulus, Stretch

Liquid Absorption, Porosity, Adhesion

Sizing tests, Cobb, Water drop, etc.

Moisture & Humidity Effects on Performance
and Properties

Causes of Curl, Warp, & Wash Boarding

Viscoelastic Creep Failure of Boxes

Printability & Smoothness

Friction

Others, as per survey of participants

12:00 – 1:00 LUNCH

1:00 – 5:00

Pulp & Paper Manufacturing Overview & Effects

Fiber Raw Materials

Kraft and NSSC Pulps; Recycling pulps

Stock Preparation Refining

Chemical Additives & Wet End Chemistry

Paper Machine Wet End Operations

Approach system, BW control

Headbox and Sheet Forming Operations

Formation BW Profile, and Fiber MD/CD control

Top Fourdriniers, Hybrid Machines, Gap Formers

Pressing, Drying, Calendering, Winding

Pressing Effects on Sheet Properties

Drying & Effects of Drying and Shrinkage &

Moisture profile on Liner & Medium sheet

Size Press Surface Treatment Effects

Calendering Effects

Winding operations

5:00 Course Evaluation & Adjournment