

# Overview

## Introduction to the Flexographic Printing Process

**What:** Hands-on overview to the entire process of flexographic printing

- A. What is Flexography?
- B. Why print by the flexographic printing process and what are the advantages?
- C. What types of products are printed by flexography and why?
- D. What are the major components of the flexographic printing press and their functions?
- E. How to perform fundamental plate tests and press tests?
- F. What are the variable options today for flexography?

**Take away in the end:**

- A. Key flexographic and graphics terms
- B. Digital prepress for flexography
- C. Flexographic plate making and plate mounting
- D. Anilox roller selection
- E. Flexographic press designs and print production set up
- F. Print registration
- G. Ink blending and overview of color matching

**Terms:**

Flexography	Gear Pitch / Undercut	Dot Gain
Printing Processes	Central Impression	Spot / Process Color
Halftone Screening	In-Line	Digital Proofing
LPI	Stacked	RIP / 1 bit TIFF
Vector Artwork	Photopolymer	pH / viscosity
Raster Artwork	Digital Imaging	Doctor Blade
Trap / Bleed	Face Exposure	Rubber Roller
Fill / Stroke	Back Exposure	Anilox Roller
Layout	Relief	BCM / CPI
Distortion	Stickyback	Bearer Bars
Step and Repeat	Impression	Register Marks

**Day 1 (Monday) 8:30 AM Sonoco Institute, Clemson University**

## **Printing processes, graphics, platemaking & press test**

**8:30-9:00**

Introductions & Program Orientation

**9:00-10:00**

Presentation: Overview of Major Printing Processes, Flexography

**10:00-10:15**

Presentation: Image Reproduction

Break

**10:30am-12:30**

Hands-On: Print Production

Plate mounting, Ink Preparation, Anilox selection, pressmanship

**12:30-1:30pm: Lunch Break**

**2:00-2:30**

Presentation: Anilox Rollers

**2:30-3:00**

Presentation: Flexographic Platemaking

Break

**3:30-4:30**

Hands-On: Flexo Platemaking

- A. Optimization: Back exposure testing
- B. Solvent processing
- C. Image & Process Digital Test Plate
- D. Quality Control Measurements

**Day 2** (Tuesday)

**8:30 AM Sonoco Institute, Clemson University**

## **Print measurement, design, and prepress**

**8:30-11:15**

Hands-On: Electronic Design, 2-Color

Break

**11:30-12:00**

Hands-On: Evaluation of Banded Test

**12:00-1:00: Lunch Break**

**1:00-3:00**

Demo/Hands-On/Presentation: Technical Prepress for Flexo

**3:00-3:30**

Hands-On: RIP and Output

**3:30-4:30**

Hands-On: Platemaking

**Day 3** (Wednesday) *8:30 AM Sonoco Institute, Clemson University*

## **Press run, folding carton structure, 4-color design**

**8:30-11:30**

Hands-on: 2-Color Press run Omet

- A. Set up
- B. Setting Print Impression
- C. Registration color to color
- D. Press Clean up
- E. Measurement

**11:30-12:30:** *Lunch Break*

**12:45-2:45**

Hands-on: Electronic Design: 4 Color Process

- A. Using a CAD file
- B. 4C design
- C. Clipart and image preparation
- D. 3D soft proofing
- E. Bleeds
- F. Digital workflow automation

**2:45-3:45p**

Hands-on: Proofing

**3:45-4:30**

Hands-On: Platemaking

**Day 4** (Thursday) *8:30 AM Sonoco Institute, Clemson University*

## **Platemaking and mounting, press run**

**8:30-9:15**

Hands-on: Platemaking and Mounting

**9:15-11:45**

Hands-on: Print Production, 4 Color Process

**11:45-12:30**

Question and Answer Session

Trends in Flexography

Print Defects

**12:30 END**

**Instructors:**

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