

AMPT09 FLEXOGRAPHY

UNIT-1 INTRODUCTION TO FLEXOGRAPHY

- 1.1 Definition. Flexographic printing, flexographic market, flexographic products, growth potential, Advantages of flexography, Press development.
- 1.2 Mechanical principles of flexography- Fountain roll, Anilox roll, plate cylinder, impression cylinder.

UNIT-2 FLEXOGRAPHIC PRINTING PLATES

- 2.1 Introduction. Plates for printing Rubber plates, its kinds and methodes of preperation,
- 2.2 Photopolymer plates its kinds and methodes of preperation, care handling and storage of flexographic plates.

UNIT-3 THE PRINTING PRESS

- 3.1 Flexo press types - Stack press, Central impression cylinder press, Inline press, Tension control in flexographic m/c,
- 3.2 Unwind equipment's - general, single-position unwind - flying-splice unwind, unwind tension systems, cooling drum a out feed unit.
- 3.3 Rewind equipment's - surface winders, center winders, rewind tension systems. Web guides. Printing stations - two roll, anilox roll, reverse angle doctor blade system,
- 3.4 Deck control, Continuous inking, side and circumferential register control, Dryers.
- 3.5 Mechanical components - CI drum, plate cylinders. Anilox roll - construction, cell structure, anilox roll wear, selecting the night anilox roll, chrome plating.
- 3.6 Fountain rolls - formulating rubber for rolls, Flexo roller covering, Care of covered rolls.

UNIT-4 MOUNTING AND PROOFING

- 4.1 Introduction. Checking the equipment.
- 4.2 Operation care of equipment. Understanding the mounting instructions.
- 4.3 Mounting and proofing a complete line job - proofing the first set of plates, proofing for printability, methods of prepress makeready, wrapping mounted cylinders.
- 4.4 Miscellaneous procedures - removing plates from the cylinder, mounting metal-backed plates, reusing sticky back, plate staggering, use of release agents.
- 4.5 Tools for the operator. Basic requirements for process colour printing.
- 4.6 Press room practices. Environment and safety concerns.

UNIT-5 FLEXO GRAPHY AND BARCODING

- 5.1 Barcode structures. Types.
- 5.2 Verifying/Analyzing printed barcodes.
- 5.3 UPC and flexographic printing.
- 5.4 UDC film masters and printing capability tests.
- 5.5 The shipping container symbol (SCS).
- 5.6 SCS shipping contain Barcode printing.

UNIT-6 BEYOND THE HORIZON- TOMORROWS FLEXOGRAPHY

- 6.1 Flexo graphic substrates. Narrow web presses-Narrow web press components, Future narrow web flexography. Wide web presses.
- 6.2 Corrugated presses.
- 6.3 Preprinted liner presses.
- 6.4 Future of Ink distribution system.
- 6.5 Tomorrow's flexographic plates.
- 6.6 News print for water-base flexography.
- 6.7 Markets for today and tomorrow.

Reference Book:

1. Flexography principles and practices- Foundation of flexographic technical association.

