

Packaging Materials For Packaging Professionals

Seminar Syllabus

Day 1

Section 1: Structure

- Molecules and atoms
- Primary bonding systems
- Secondary bonding systems
- Mixtures and solutions in materials
- Morphology - crystals and amorphousness
- States, compositions and phases
- Phase diagrams
- Defects in crystals
- Solid solutions
- Stress
- Deformation and its effects on structure
- Annealing and its effects on structure

Section 2: Common Processing Techniques

- Melting
- Rolling
- Casting
- Annealing
- Extrusion
- Cooling

Day 2

Section 3: Properties

- Density
- Thermal properties
- Tensile properties
- Other mechanical properties
- Optical properties
- Diffusion & permeation properties

Section 4: Packaging Materials Overview

- Wood
- Paper
- Paperboard
- Plastics
- Bio-derived plastics
- Foams
- Steel
- Aluminum