Susan E.M. Selke John D. Culter Ruben J. Hernandez

# Plastics Packaging

Properties, Processing, Applications, and Regulations





2nd Edition

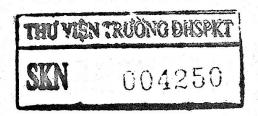
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### Selke · Culter · Hernandez

## Plastics Packaging

The increasing importance of plastic materials in packaging makes it mandatory for everyone in this industry to command a basic understanding of the properties of the common packaging plastics.

The second edition of this well received book provides just that to students and packaging professionals alike: Material properties and how they relate to the chemical structure of the polymers, common processing methods for packaging applications, help with writing specifications, designing, fabricating, testing, and controlling the quality of the plastic material are covered comprehensively.

Expanded and updated information on PET bottle production, retort pouches, polylactides, and plastic recycling among other topics make the second edition an indispensable resource for both the packaging expert and the novice.

#### Contents

- Introduction
- Basic Concepts and Definitions
- Polymer Structure and Properties
- Major Plastics in Packaging
- Additives and Compounding
- Adhesion, Adhesives, and Heat Sealing
- · Extrusion, Film and Sheet
- Converting, Lamination, and Coating
- Flexible Packaging
- Thermoforming
- Injection Molding, Closures, Rotational Molding, Compression Molding, and Tubes

- · Blow Molding and Bottles
- Foams, Cushioning and Distribution Packaging
- Mass Transfer in Polymeric Packaging Systems: Sorption, Diffusion, Permeation, and Shelf Life
- US Regulations and Plastic Packaging Issues
- Environmental Considerations

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