

Introduction

Packaging is a rapidly changing and advancing technology with major requirements for material standardization and testing. Among the ASTM committees directly concerned with this area are D-10 and F-2. The first deals with the total package performance, and the second with flexible barrier materials. Other committees cover specific materials.

There has existed a need for closer communication between these two committees and their immediate consumers—the industries supplying packaged products to the general public.

There is a wide range of these mutual concerns illustrated in this symposium covering performance of basic materials as barrier to water vapor diffusion, load/material interrelations in various sizes of containers for liquids, strength of fabricated seals to a very new but highly important aspect—the environmental impacts. This topic is dealt with in two papers; one on a specific contaminant, the other on the general one of the role of biodegradation in relation to solid waste disposal.

It should be recognized that the symposium itself and the selected papers from it herein published comprise only a tiny fraction of these needs. Much more is required on the effect of packaging design and fabrication method on performance, interactions between materials and package making equipment, stability enhancement of packaged goods by the containers and methods for predicting the expected “shelf life”, and development of packaging systems to integrate into effective solid waste management.

The overall concern for consumer safety in use and performance will continue to be of paramount importance.

It is hoped that this volume will serve as an initial step in facilitating the communication of these needs and that ASTM will serve as a forum for coordination of the technical knowledge relating to materials for packaging, their performance specifications, and the development of appropriate tests for their evaluation as capable of meeting the technical requirements.

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