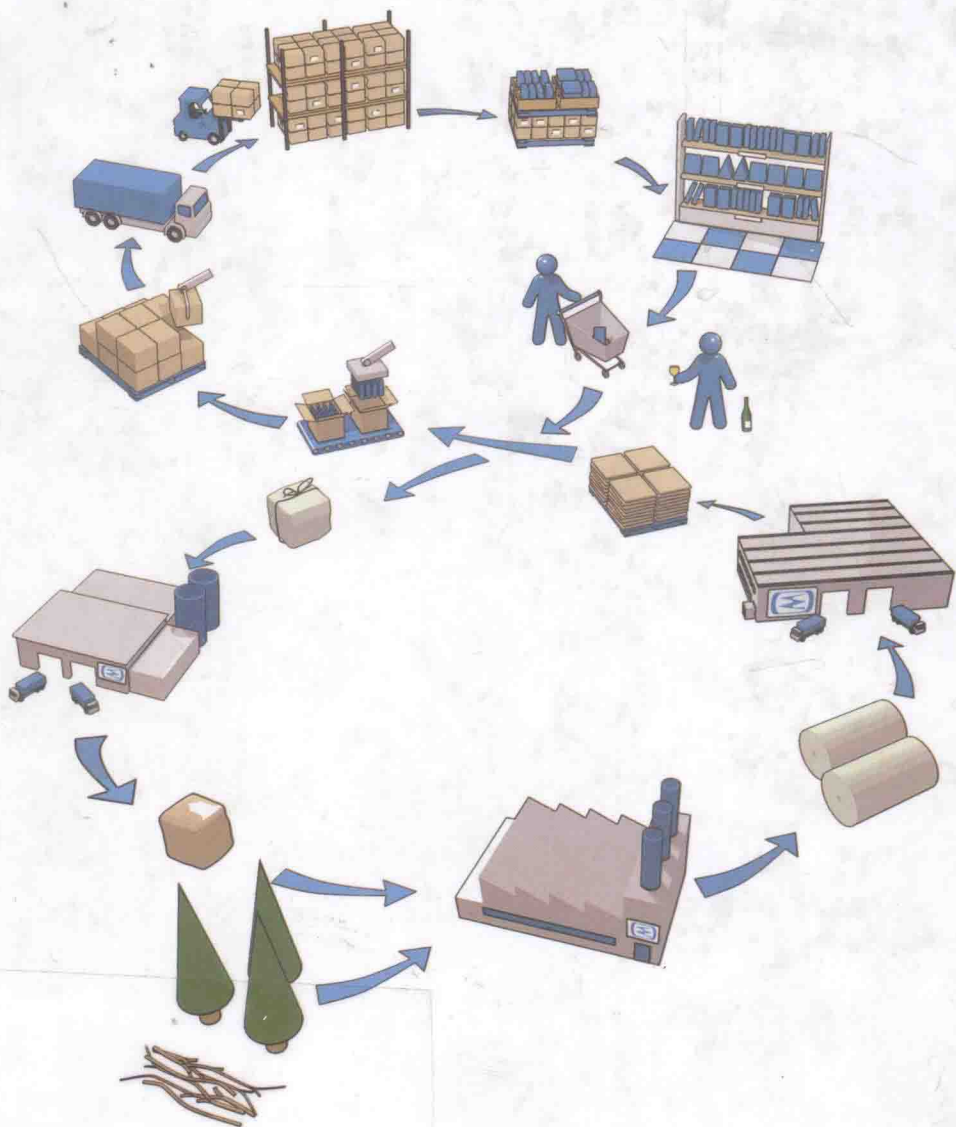


Handbook of Paper and Paperboard Packaging Technology

SECOND EDITION

Edited by Mark J. Kirwan



Handbook of Paper and Paperboard Packaging Technology

Second Edition

Edited by

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Paper and Paperboard Specialist,
Fellow of the Packaging Society,
London, UK



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Preface

This book discusses all the main types of packaging based on paper and paperboard. It considers the raw materials and manufacture of paper and paperboard, and the basic properties and features on which packaging made from these materials depends for its appearance and performance. The manufacture of 12 of the main types of paper- and paperboard-based packaging is described, together with their end-use applications and the packaging machinery involved. The importance of pack design is stressed, including how these materials offer packaging designers opportunities for imaginative and innovative design solutions.

Authors have been drawn from major manufacturers of paper- and paperboard-based packaging in the UK, the Netherlands, Austria and the USA, and companies over a much wider area have helped with information and illustrations. The editor has wide experience in industry having spent his career in technical roles in the manufacture, printing, conversion and use of paper, paperboard and packaging.

Packaging represents the largest usage of paper and paperboard and therefore both influences and is influenced by the worldwide paper industry. Paper is based mainly on cellulose fibres derived from wood, which in turn is obtained from forestry. The paper industry is a major user of energy and other resources. The industry is therefore in the forefront of current environmental debates. This book discusses these issues and indicates how the industry stands in relation to the current requirement to be environmentally sound and the need to be sustainable in the long term. Other related issues discussed are packaging reduction, life-cycle analysis and assessment, and the options for waste management.

The book is directed at those joining companies which manufacture packaging grades of paper and paperboard, companies involved in the design, printing and production of packaging and companies which manufacture inks, coatings, adhesives and packaging machinery. It will be essential reading for students of packaging technology in the design and use of paper- and paperboard-based packaging as well as those working in the associated media.

The 'packaging chain' mainly comprises:

- Those responsible for sourcing and manufacturing packaging raw materials.
- Printers and manufacturers of packaging, including manufacturers of inks, adhesives, coatings of all kinds and the equipment required for printing and conversion.
- Packers of goods, for example within the food industry, including manufacturers of packaging machinery and those involved in distribution.
- The retail sector, supermarkets, high street shops, etc., together with the service sector, hospitals, catering, education, etc.

The packaging chain creates a large number of supplier/customer interfaces, both between and within companies, which require knowledge and understanding. The papermaker needs to understand the requirements of printing, conversion and use. Equally, those involved in printing conversion and use need to understand the technology and logistics of papermaking together with the packaging needs of their customers and society. Whatever your position

within the packaging chain, it is important to be knowledgeable about the technologies both upstream and downstream from your position.

Packaging technologists play a pivotal role in defining packaging needs and cooperating with other specialists to meet those needs in cost-effective and environmentally sound ways. They work with suppliers to keep abreast of innovations in the manufacture of materials and innovations in printing, conversion and use. They need to be aware of trends in distribution, retailing, point-of-sale/dispensing, consumer use, disposal options and all the societal and environmental issues relevant to packaging in general.

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Mark J. Kirwan

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