

Packaging code —

Section 7: Paper and board wrappers, bags and containers — Subsection 7.1 Wrapping papers

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Committees responsible for this British Standard

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- Association of Drum Manufacturers
- British Paper and Board Industry Federation (PIF)
- Department of Trade and Industry (Laboratory of the Government Chemist)
- Glass Manufacturers' Federation
- Institute of Packaging
- Metal Packaging Manufacturers' Association
- Ministry of Defence
- PIRA (the Research Association for the Paper and Board, Printing and Packaging Industries)
- Pressed Felt Manufacturers' Association
- Process Plant Association
- Timber Packaging and Pallet Confederation
- Timber Research and Development Association

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Foreword

This Subsection of BS 1133, which has been prepared under the direction of the Packaging and Freight Containers Standards Committee, supersedes clauses 1 to 7 of BS 1133-7:1967 which are deleted by amendment.

BS 1133 was originally issued in December 1943 and was intended primarily to give guidance on the packaging of Service and other Government supplies. In practice, however, the code was used not only by Government departments and contractors, but also by civilian packers and accordingly it was later amended to suit commercial requirements.

The Parts were later issued separately and new Sections were added as necessary. Since Section 7 covers many different types of packaging materials it was decided to subdivide it into a number of separately published Subsections.

This Subsection, Subsection 7.1, provides information on available types of wrapping papers and gives guidance on their selection and use.

The packaging code now consists of the following Sections all of which are published separately with the exception of Sections 1 to 3 which are published in one volume.

- *Sections 1 to 3: Introduction to packaging;*
- *Section 4: Mechanical aids in package handling;*
- *Section 5: Protection against spoilage of packages and their contents by micro-organisms, insects, mites and rodents;*
- *Section 6: Temporary protection of metal surfaces against corrosion during transportation and storage;*
- *Section 7: Paper and board wrappers, bags and containers;*
- *Section 7-7.1: Wrapping papers;*
- *Section 7: Chapter 7.5 Fibreboard cases;*
- *Section 8: Wooden containers;*
- *Section 9: Textile bags, sacks and wrappings;*
- *Section 10: Metal containers;*
- *Section 11: Packaging felt;*
- *Section 12: Cushioning materials (excluding packaging felt);*
- *Section 13: Twines and cords for packaging;*
- *Section 14: Adhesive closing and sealing tapes;*
- *Section 15: Tensional strapping;*
- *Section 16: Adhesives for packaging;*
- *Section 17: Wicker and veneer baskets;*
- *Section 18: Glass containers and closures;*
- *Section 18-1: Terminology;*
- *Section 19: Use of desiccants in packaging;*
- *Section 21: Regenerated cellulose film, plastics film, aluminium foil and flexible laminates;*
- *Section 22: Packaging in plastics containers.*

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This Subsection of BS 1133 gives information on wrapping papers and guidance on their selection and use for packaging purposes.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this British Standard the definitions given in BS 3130-2 and BS 3203 apply except as modified in this clause.

wrapping paper

paper used to provide protection for goods against hazards in transit and storage

3 General

3.1 Uses

Wrapping paper is used to provide protection for goods, most commonly against dust and dirt, but also, as appropriate, against water, water vapour, grease and oils. Another use for wrapping paper is to hold several articles together in one neat, easily handled package, which will not sag or fall apart in transit.

A wide variety of wrapping materials is available to the packer, based on plastics films as well as on paper. Polyethylene film, shrink and stretch films are examples of alternatives to paper wrappings. The growth of self-service stores and supermarkets has resulted in a trend towards pre-packaging, often eliminating the need for wrapping papers.

The choice of wrapping material ultimately depends on the goods to be protected and on the method and conditions of transportation, distribution and storage. This Subsection deals with wrapping papers. Plastics film wrapping materials are covered in BS 1133-21.

3.2 Quality

Wrapping papers are made in a wide range of qualities, many of which are available both bleached and unbleached. The grammage of a paper, also known as its substance or basis weight, is the mass of a given area of paper. It is expressed in grams per square metre (g/m^2). BS 3432 describes a method for the determination of the grammage of paper. The strength of paper is usually characterized by its bursting strength. Although useful for comparison purposes this property is less important to users of wrapping papers than tensile strength, tear resistance and puncture resistance. Test methods for the determination of bursting strength, tensile strength and tear resistance are described in BS 3137, BS 4415 and BS 4468 respectively. Temperature and moisture content can greatly affect the physical properties of paper and it is essential that tests made for comparative or other purposes are carried out under the standard conditions described in BS 3431.

These properties are largely determined by the fibre furnish and the papermaking process. Machine glazed (MG) papers have an attractive appearance and a dense surface to which dust does not readily adhere. Unglazed (UG) and machine finished (MF) papers are more pliable and have greater tear resistance than MG papers of equivalent grammage. Further, UG and MF papers are less costly than MG papers.

3.3 Wet strength papers

Ordinary wrapping papers will lose most of their physical strength when saturated with water. Paper can be chemically treated during manufacture so that it retains an appreciable proportion of its strength when it is saturated. Such paper is known as "wet strength paper".

It is emphasized that wet strength paper is no more water-repellent or resistant to penetration by water or water vapour than ordinary paper. Wet strength paper may of course be coated or laminated with suitable barrier materials to render it resistant to water and water vapour.

Wet strength treatment helps to retain the integrity of wrapping papers used for wet products, e.g. fish, or for packaging exposed to wet conditions.