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Glossary of

Packaging terms

Part 3. Glass containers and closures

Packaging code

Section 18. Glass containers and closures

Subsection 1. Terminology

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The following references relate to the work on this standard:

Committee reference P/149 Draft for comment 70/26272

## Co-operating organizations

The Packaging Standards Committee, under whose supervision this glossary was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- |                                                            |                                                     |
|------------------------------------------------------------|-----------------------------------------------------|
| *Association of Drum Manufacturers                         | *Glass Manufacturers' Federation                    |
| *British Paper and Board Makers' Association               | *Institute of Packaging                             |
| *British Paper Bag Federation                              | Institute of Trading Standards Administration       |
| British Paper Box Federation                               | Institution of Production Engineers                 |
| *British Plastics Federation                               | *Ministry of Defence (Procurement Executive)        |
| *British Tin Box Manufacturers' Association                | Oil Companies' Materials Association                |
| Chemical Industries' Association                           | Packaging Films Manufacturers' Association          |
| *Collapsible Tube Manufacturers' Association               | Paintmakers' Association of Great Britain Ltd.      |
| *Confederation of British Industry                         | *PIRA—Research Association for the Paper and Board, |
| Crown Agents for Oversea Governments and Administrations   | Printing and Packaging Industries                   |
| Department of the Environment                              | Soap and Detergent Industry Association             |
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| Envelope Makers' and Manufacturing Stationers' Association | Timber Packaging and Pallet Confederation           |
| *Fibreboard Packing Case Manufacturers' Association        | Technical Section of the British Paper and Board    |
| *Food Manufacturers' Federation (Incorporated)             | Makers Association                                  |

The Government department and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this glossary:

- |                                            |                                         |
|--------------------------------------------|-----------------------------------------|
| British Closure Manufacturers' Association | National Coöperage Federation           |
| British Tensional Strapping Association    | Paper Sack Development Association      |
| Hard Fibre Cordage Institute               | Pressed Felt Manufacturers' Association |
| Institution of British Engineers           | Road Haulage Association Ltd.           |
| National Association of Paper Merchants    |                                         |



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## Foreword

This publication has been prepared under the authority of the Packaging Standards Committee. It is published as BS 3130: Part 3, and is also known as BS 1133: Section 18: Subsection 1. Subsection 1 of BS 1133: Section 18 is made up of the definitions clauses from BS 1133: Section 18: 1967.

Pending the completion of the full revision, BS 3130: 1959 continues to be valid, subject to replacement by this new Part 3 and by the other parts when published as revisions.

In each section of the glossary the terms are arranged so that related subjects are grouped together. The sequence of terms depends therefore, on their meanings and is not alphabetical; an alphabetical index is provided.

Each term has assigned to it a Part number (one digit) and a Section number (one digit), followed by a space, with the remaining three digits indicating the position of the term within the Section.

The complete revision of BS 3130 will be published in six Parts as follows:

- Part 1. General
- Part 2. Paper and board packaging
- Part 3. Glass containers and closures
- Part 4. Metal containers and aerosols
- Part 5. Plastics and flexible packaging (excluding paper)
- Part 6. Wood and textiles

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**Section 31. Glass containers**

| No.    | Term                               | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 31 001 | glass                              | An inorganic material obtained by fusion of raw materials (the main one being silica), which is homogeneous and isotropic. The fused mass has been cooled down at a rapid and controlled rate, essentially without crystallization in the case of transparent colourless glass and/or coloured glass, but with crystallization or phase separation in the case of translucent or opaque glass. The physical and chemical properties of glasses are entirely different from those of the constituent materials. |
| 31 002 | amber glass                        | Brown coloured glass with reduced light transmission properties.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 31 003 | actinic green glass                | Emerald green glass, normally used for poison bottles.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 31 004 | opal glass                         | Opaque or semi-translucent glass, normally white.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 31 005 | pale glass                         | Pale green glass.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 31 006 | flint glass<br>white flint glass   | A term applied to colourless glass.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 31 007 | borosilicate glass                 | Silicate glass containing boric oxide, $B_2O_3$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 31 008 | neutral glass                      | A glass of high chemical durability.<br>NOTE. BS 795, 'Ampoules', lays down limits of alkalinity for neutral glass ampoules.                                                                                                                                                                                                                                                                                                                                                                                   |
| 31 009 | soda-lime glass<br>lime-soda glass | Glass in which the main constituents are silica, soda and lime.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 31 010 | translucent glass                  | Glass which transmits light diffusely. Through-vision may vary from almost clear to almost obscured. Diffusiveness is produced by a suitable treatment of the surface of clear glass either by imprinting a pattern or texture, or by sandblasting, acid etching or other means.                                                                                                                                                                                                                               |
| 31 011 | winchester                         | A term applied to round, narrow or widemouth bottles used mainly for the packing of chemicals.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 31 012 | ampoule                            | A container sealed, after filling, by fusing the glass neck.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 31 013 | filling point                      | The level to which a glass container is intended to be filled.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 31 014 | brimful capacity                   | Volume of container when filled to the top of the ring.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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BS 1133 : Section 18 : Subsection 1 : 1974

| No.    | Term                    | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 31 015 | <b>maximum capacity</b> | The maximum volume which a container should hold when filled to the appropriate filling point.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 31 016 | <b>minimum capacity</b> | The minimum volume which a container should hold when filled to the appropriate filling point.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 31 017 | <b>nominal capacity</b> | Volume which a container should hold when filled to the appropriate filling point.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 31 018 | <b>vacuity</b>          | <p>The expansion space left in a container between the top level of the contained liquid and the lowest limit of the affixed closure. This space may be expressed conveniently as a percentage of the volume of liquid in the container at the time and temperature of filling.</p> <p>It is essential that the correct vacuity be determined for each separate product to be sealed. This expansion space is generally named 'ullage' when applied to other types of containers, e.g. metal or wood. The word 'ullage' should not normally be used in relation to glass containers however, as it has a different meaning in certain trades that use considerable quantities of glass containers and may therefore give rise to confusion.</p> |
| 31 019 | <b>bulk test</b>        | A test in which the capacity of glass containers is determined, not with reference to a single container but on the average of a random sample, usually of 12 containers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 31 020 | <b>ring finish</b>      | The top part of a container made to accommodate the closure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 31 021 | <b>sealing surface</b>  | The portion of the ring which makes contact with the sealing gasket or liner of the closure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 31 022 | <b>external screw</b>   | A screw thread on the outside of the ring of a bottle or jar.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 31 023 | <b>internal screw</b>   | A screw thread in the bore of a bottle.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 31 024 | <b>neck</b>             | The part of a container between the ring and the shoulder.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 31 025 | <b>shoulder</b>         | The curved surface between the body and the neck of a bottle or other container.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 31 026 | <b>insweep</b>          | An inward curved or tapered portion of a glass container which joins the lower part of the sides to the base.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 31 027 | <b>neck ring</b>        | The mould portion used to form the ring of a glass container.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 31 028 | <b>locking ring</b>     | Part of the ring of a container for securing a closure in position.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 31 029 | <b>bead</b>             | An enlarged, rounded edge of a glass article, or any raised section extending around the article.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 31 030 | <b>bore</b>             | The internal conformation of the neck of a container.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 31 031 | <b>mould joint</b>      | A line or seam on glassware formed at the join of two mould parts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 31 032 | <b>ovality</b>          | Deviation from a circular towards an elliptical cross section of a container, generally expressed as the difference between the length of the major and minor axes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| No.    | Term                                           | Definition                                                                                                                                |
|--------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 31 033 | bottom<br>base<br>punt                         | The bottom of the container.                                                                                                              |
| 31 034 | bottom mark<br>base code<br>punt mark          | Identification mark embossed on the base or insweep of a glass container.                                                                 |
| 31 035 | push-up                                        | A bottom or base shaped to form a concavity.                                                                                              |
| 31 036 | mould                                          | The metal form in which glass is shaped.                                                                                                  |
| 31 037 | blow mould                                     | The mould in which a glass article is blown to its final shape.                                                                           |
| 31 038 | paste mould                                    | A mould lined with adherent carbon used mainly for tumblers of circular cross section.                                                    |
| 31 039 | plug<br>plunger<br>tip<br>plunger tip          | The reciprocating metal part which in a blank mould forms the initial cavity for subsequent blowing.                                      |
| 31 040 | blow-and-blow process                          | A process of forming hollow ware in which both the preliminary and final shapes are formed by air pressure.                               |
| 31 041 | press-and-blow process                         | A process of glass manufacture in which the parison is shaped by pressing and subsequently blown to form the final shape.                 |
| 31 042 | parison<br>blank                               | A preliminary shape or blank from which a glass article is formed.                                                                        |
| 31 043 | gob                                            | A lump of hot glass delivered by a feeder, or a lump of hot glass gathered on a punty or blowing iron.                                    |
| 31 044 | gob process<br>flow process<br>gravity process | A process for making hollow ware in which glass is delivered by an automatic feeder in the form of soft lumps suitable to a forming unit. |
| 31 045 | double-gob process                             | A process in which two molten lumps of glass are dropped simultaneously into a mould having two cavities.                                 |
| 31 046 | refining<br>fining<br>founding<br>plaining     | The stage in the melting process at which the molten glass is made almost free from undissolved gases.                                    |
| 31 047 | anneal                                         | To remove strains in glassware by maintaining the latter at suitable temperature, and subsequently cooling at a controlled rate.          |
| 31 048 | feeder                                         | Mechanism which delivers gobs to the machine.                                                                                             |
| 31 049 | feeder channel                                 | Refractory trough which delivers molten glass to the feeder.                                                                              |
| 31 050 | lehr                                           | A long heated tunnel for annealing glass.                                                                                                 |