

Specification for

**Non-refillable metallic
containers up
to 1.4 litres capacity
and 85 mm diameter for
liquefied or compressed
non-flammable gases**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Packaging and Freight Containers Standards Policy Committee (PKM/-) to Technical Committee PKM/562, upon which the following bodies were represented:

- Association of the British Pharmaceutical Industry
- British Aerosol Manufacturers' Association
- British Compressed Gases Association
- British Pest Control Association
- British Plastics Federation
- Camping and Outdoor Leisure Association
- Consumer Policy Committee of BSI
- Cosmetic, Toiletry and Perfumery Association Limited
- Department of Trade and Industry (Consumer Safety Unit, CA Division)
- Health and Safety Executive
- Institute of Trading Standards Administration
- Liquefied Petroleum Gas Industry Technical Association (UK)
- Metal Packaging Manufacturers Association
- PIRA
- Society of Cosmetic Scientists

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Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
Section 1. General	
1 Scope	1
2 Responsibility for compliance	1
3 Definitions	1
Section 2. Unfilled containers	
4 Materials	2
5 Construction	2
6 Finish	2
7 Performance requirements	2
Section 3. Filled containers	
8 Valves and other closures	3
9 Containers	5
10 Requirements for filled containers	6
11 Marking of filled containers	6
Appendix A Information to be supplied at the time of enquiry and order	8
Appendix B Pressure test method	8
Figure 1 — Cross section of a typical fitted threaded valve cup (type 1), showing dimensions applicable to the filled container fitted with either type 1 or type 2 valves	4
Figure 2 — Critical dimensions in relation to valve operation	5
Table 1 — Testing schedule	2
Publications referred to	Inside back cover

Foreword

This British Standard has been prepared under the direction of the Packaging and Freight Containers Standards Policy Committee. It supersedes BS 5188:1975 which is withdrawn.

It has not been considered desirable to define too closely the methods of construction and only general requirements have been included. The type of container selected should be appropriate to the pressure likely to be generated, having regard to the climatic conditions to which it is likely to be exposed in carriage, storage and use.

This revision has been subdivided into sections in order to clarify the responsibility for compliance with the requirements specified for unfilled and filled containers respectively and incorporates additional requirements in relation to valves and closures particularly for containers fitted with threaded centre boss valve cups.

To further improve safety in use it is intended to develop a method of test to enable performance requirements to be specified for threaded connections, taking account of the forces to which these are subjected when containers are fitted to an appliance. This will be incorporated at a later date.

NOTE Because of the need to ensure safety in use it is important that a suitable scheme of process and quality control is adopted to verify that both unfilled and filled containers comply with the performance requirements specified.

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.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, 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.

Section 1. General

1 Scope

This British Standard specifies requirements for materials, construction, performance and marking for non-refillable metallic containers up to 1.4 litres capacity and 85 mm internal diameter for use solely with liquefied or compressed non-flammable gases or mixtures thereof. The maximum internal gauge pressure for the contents at 55 °C is restricted to 23 bar¹⁾ for Group 1 containers and 17.6 bar for Group 2 containers.

Reservoirs integral with appliances, intended for refilling by the consumer from a larger container, are not covered by this standard.

The standard is subdivided to distinguish the requirements relating only to the unfilled container from those applicable to the filled container.

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

2 Responsibility for compliance

This British Standard specifies requirements both for the unfilled container and the filled container. It shall be the responsibility of the manufacturer of the unfilled container to ensure compliance with Section 2. It shall be the responsibility of the filler to ensure compliance with the requirements of Section 3, using unfilled containers that comply with Section 2.

3 Definitions

For the purposes of this British Standard, definitions given in BS 3130-4 apply, together with the following.

3.1

non-refillable container

a container designed to be discarded when the contents are exhausted and not to be refilled

3.2

unfilled container

a container at the end of the manufacturing operations carried out by the container manufacturer

3.3

group 1 containers

containers having an internal diameter not exceeding 75 mm and a maximum brimful capacity not exceeding 1 000 mL

3.4

group 2 containers

containers other than those covered by group 1 having an internal diameter not exceeding 85 mm and a maximum brimful capacity not exceeding 1.4 litres

3.5

empty container

a container closed as in the filling process but before filling with product

3.6

emptied container

a container closed and filled as in production and subsequently emptied of product

3.7

filling ratio

the ratio of the mass of gas introduced into a container to the mass of water at 15 °C that fills the container fitted as for use, e.g. complete with valve

3.8

male valve

an aerosol type valve having an external stem central to and emergent from the centre boss²⁾ of the valve cup

3.9

female valve

an aerosol type valve having no external stem, designed to allow the spigot of an appropriate appliance to enter into the valve²⁾

3.10

blank valve cup

a valve cup having no valve and no hole in the centre boss, designed to be pierced by the spigot of an appropriate appliance when properly attached²⁾

3.11

lot

a collection of containers of a single type, manufactured under essentially the same conditions and at essentially the same time, from which a sample is to be drawn and inspected to determine conformance with the acceptability criteria

NOTE This may differ from a collection of containers designated as a lot for other purposes, e.g. production, shipment etc.

¹⁾ 1 bar = 10⁵ N/m² = 100 kPa.

²⁾ The centre boss of the valve cup may be threaded or non-threaded.