

Specification for

Plastics containers for surface coatings

ICS 55.120

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Committees responsible for this British Standard

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- Association of the British Pharmaceutical Industry
- Association of Drum Manufacturers
- Brewers and Licensed Retail Association
- British Aerosol Manufacturers Association
- British Coatings Federation Ltd.
- British Fibreboard Packaging Association
- British Glass Manufacturers Confederation
- British Plastics Federation
- British Retail Consortium
- British Soft Drinks Association Ltd.
- Chemical Industries Association
- Consumer Policy Committee of BSI
- Cosmetic, Toiletry and Perfumery Association Limited
- Environmental and Technical Association for the Paper Sack Industry
- Federation of Drum Reconditioners
- Flexible Packaging Association
- Institute of Packaging
- LP Gas Association
- Metal Packaging Manufacturers Association
- Packaging and Industrial Films Association
- Paper Federation of Great Britain
- Pira International
- Laboratory of the Government Chemist
- Department of Trade and Industry (Consumer Safety Unit, CA Division)

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Foreword

This British Standard has been prepared by Technical Committee PKW/2.

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 12, an inside back cover and a back cover.

Specification

Introduction

This British Standard specifies requirements for plastics containers intended primarily for paints and other products of the surface coatings industry. An equivalent standard, BS 1262, specifies requirements for round metal containers with lever lids for paints and other products of the surface coatings industry.

1 Scope

This British Standard specifies requirements, applicable at the time of supply, for a range of plastics containers, with nominal volumes between 125 ml (millilitres) and 10 l (litres), intended primarily for paints and other products of the surface coatings industry.

Performance requirements and related methods of test are described covering freedom from leaks, stacking strength, anti-static properties, handle strength and lid security.

NOTE 1. Compliance with this standard does not in itself imply suitability for the purpose for which the container is used.

NOTE 2. Where paints or other products are classed as hazardous, the package will be required to conform to the appropriate supply or carriage regulations. This may require performance testing and certification of packages.

2 References

2.1 Normative references

This British Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are made at the appropriate places in the text and the cited publications are listed on the inside back cover. For dated references, only the edition cited applies; any subsequent amendments or revisions of the cited publication apply to this British Standard only when incorporated in the reference by amendment or revision.

2.2 Informative references

This British Standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this British Standard, the following definitions apply.

3.1 supply

Transfer of goods from the supplier to the customer.

NOTE. In some circumstances, 'supply' can be the point of transfer of ownership, to be agreed between the customer and supplier.

3.2 ullage

Gross lidded capacity minus the nominal volume.

3.3 package

The unit that is liable to be individually handled, including the receptacle in which goods are carried, the contents and any associated packagings, e.g. components, materials or wrappings for the purpose of enabling it to perform its containment function.

4 Dimensions and ullage

NOTE. Recommended dimensions for round, cylindrical, lever-lid containers are given in annex A.

The gross lidded capacity shall be determined in accordance with annex B. The minimum ullage space shall be 8 % of the nominal volume.

5 Materials and construction

5.1 Materials

Except where the inclusion of such recyclate material would degrade or otherwise adversely affect the contents, plastics containers shall be manufactured in such a way that cleaned, post-consumer recyclate is able to be incorporated with virgin material at a level that maintains performance characteristics.

NOTE 1. To aid recyclability, all components of a container should be made from the same generic material where practical. All components should carry the appropriate identification marks, e.g. in accordance with BS 7746.

NOTE 2. All material used in the manufacture of plastics containers should be compatible with the intended contents and suitable for the intended end use. Recommendations on the information to be agreed between the purchaser and the supplier to ensure compatibility are given in annex C.

5.2 Construction

Plastics containers shall be constructed and supplied so as to ensure the following.

- a) They shall be suitable for normal conditions of filling, storage, transport and use without suffering undue damage, collapse, leakage or detriment to the external appearance or decoration.
- b) They shall be able to accept the agreed form of decoration. If printed, containers shall exhibit print adhesion of a minimum of 90 % and print hardness of a minimum of 'B' grade pencil when tested in accordance with annex D. The print integrity shall be such that the degree of legibility remains acceptable when tested in accordance with annex E.
- c) They shall show suitable resistance to static charge build-up to avoid dust attraction and/or fire hazard.

NOTE 2. See annex F for recommendations on determining surface electrostatic properties.

NOTE 3. The use of plastic containers in a flammable atmosphere may pose a fire or explosion risk due to the generation of static electricity. Such undesirable static electricity should be controlled in accordance with BS 5958.

- d) They shall show suitable resistance to environmental stress cracking by conforming to BS 2782 : Part 8 : Method 832A.

6 Performance

6.1 Freedom from leaks

When tested in accordance with either of the methods in annex G, the container shall be judged to be leak-free.

6.2 Lids

6.2.1 Lid fit

When tested in accordance with annex H, the lid shall not be displaced.

6.2.2 Fitting of lids

Lids shall be capable of being fitted automatically using conventional systems without container collapse or subsequent lid 'pop-off'. The necessary closing force for lidding shall not exceed 2.4 kN applied for not more than 0.5 s.

6.2.3 Nesting characteristics

Lids shall exhibit 'non-locking' nesting characteristics.

NOTE. Lids stacked as supplied should be capable of being loaded into conventional systems without the stacks collapsing.

6.2.4 Opening

Lever-lid containers shall be openable using a 10 mm flat bladed screwdriver without damaging or distorting the container.

NOTE. Where an opening tool is provided, this should be used.

6.2.5 Refitting

The lid shall be capable of being re-fitted manually twice for continued storage and use by the end-user of the product.

NOTE 1. Some containers may need to withstand multiple opening and re-fitting of the lid, depending on the envisaged end-use.

NOTE 2. Performance might be reduced from original levels.

NOTE 3. Manual opening and re-fitting operations should be tested by 'non-professional' personnel.

6.3 Lid retention

When tested in accordance with annex J, 95 % of containers tested shall not incur sustained or significant leakage through lid displacement or failure of the container body in both the drop and topple tests.

6.4 Stacking

When tested in accordance with annex K, containers shall exhibit no significant physical deformation in both the conventional stack test and the offset stack test.

NOTE. Plastics containers will creep if placed under load for some time. A practical test, carried out under representative conditions of storage and distribution, loading and temperature, should be agreed between customer and supplier.

6.5 Handles

6.5.1 Handle strength

After testing in accordance with annex L, handles shall be unbroken, shall still be secure on both sides and shall still be capable of holding the container plus the mass of the contents, and the container shall still conform to 6.1.

NOTE. Some distortion of the components may result from the strains of the test.

6.5.2 Handle securing

Handles and handle securing units moulded from plastics materials shall not be tested until at least 24 h after moulding.

6.5.3 UV resistance

Where moulded from plastics material, the handle and/or handle securing units fitted to the container shall still conform to 6.5.1 after exposure to UV light in accordance with annex M.