

Specification for

Round lever lid tinplate cans, paint range

UDC 621.798.144:669.68:[62-422.11 + 62-514.2]:667.6:600.3/.8:620.1

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

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/561, upon which the following bodies were represented:

- Engineering Equipment and Materials Users' Association
- Metal Packaging Manufacturers' Association
- Ministry of Defence
- Paintmakers' Association of Great Britain Ltd.

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- Association of Drum Manufacturers
- Chemical Industries Association
- PIRA

This British Standard, having been prepared under the direction of the Packaging and Freight Containers Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 30 March 1990

© BSI 09-1999
BS 1262-1 first published April 1946
BS 1262-2 first published December 1950
Combined first revision, published as BS 1262, October 1953
Second revision September 1965
Third revision November 1970
Fourth revision March 1990

The following BSI references relate to the work on this standard:
Committee reference PKM/561
Draft for comment 86/42389 DC

ISBN 0 580 17697 5

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 Definitions	1
3 Designation	1
4 Materials, design and manufacture	1
5 Performance	2
Appendix A Methods for the determination of gross lidded capacity	5
Appendix B Fitness for use	5
Appendix C Method for the detection of the presence of leaks	5
Appendix D Method of test for lid fit	6
Appendix E Method of test for handle strength	6
Appendix F Method of exposure to UV light	6
Figure 1 — Can dimensions (illustrated on can with welded body seam and handle)	3
Figure 2 — Indent position and dimensions	3
Figure 3 — Lid dimensions	4
Figure 4 — Typical apparatus for handle tensile strength test (vertical test position shown)	7
Figure 5 — Method of applying load for handle tensile strength test	8
Figure 6 — Dimensions of change blocks for handle tensile strength test	9
Figure 7 — Detail of handle grip for snatch test	10
Figure 8 — Typical apparatus for snatch test	11
Table 1 — Nominal dimensions of the specified range	1
Table 2 — Dimensions and material specifications of cans	2
Table 3 — Lid dimensions	4
Table 4 — Precision of weighing apparatus	5
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 is a revision of BS 1262:1970 which is withdrawn.

The revision limits the scope to round lever lid cans, specifically developed for paint and allied products, although used in considerable quantities for adhesives and a variety of other products, including powders. The range of nominal capacities is restricted to those agreed by the Paintmakers' Association of Great Britain Ltd. and the Metal Packaging Manufacturers' Association at the time of metrication and the capacities specified are included in Directive 80/232/EEC – "*Ranges of nominal quantities and nominal capacities of pre-packaged products*". Additional requirements and methods of test have been incorporated, relating to handle strength and lid security.

General guidance on these and other types of cans used for paint products is given in BS 1133-10. It is also anticipated that new British Standard specifications will be developed for rectangular and cone top cans used for paint products.

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 12, 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 British Standard specifies capacities, dimensions and constructional requirements for a range of round lever lid tinsplate containers (in general referred to as cans), with nominal capacities between 250 mL (millilitres) and 5 L (litres), intended primarily for paints and other products of the paint industry.

Performance requirements and related methods of test are included covering freedom from leaks, handle strength and lid security. A method for the determination of gross lidded capacity is also included as Appendix A.

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 3130-4 apply.

3 Designation

3.1 The cans in the specified range (see Table 1) shall be designated as follows:

- 250 ml
- 500 ml
- 1 litre
- 2.5 litre
- 5 litre

3.2 The nominal volumes for the specified range shall be as given in Table 1.

NOTE The figures for nominal diameter and height are intended for descriptive purposes only.

Table 1 — Nominal dimensions of the specified range

Designation	Nominal volume	Nominal diameter	Nominal height
	mL	mm	mm
250 ml	250	74	74
500 ml	500	89	100
1 litre	1 000	113	120
2.5 litre	2 500	153	157
5 litre	5 000	176	233
NOTE 1 The nominal diameter relates to the internal diameter of the can.			
NOTE 2 The nominal height relates to the height of the can body over the double seams.			

4 Materials, design and manufacture

4.1 Materials

4.1.1 Bodies, bottom ends, closure rings and lids shall be manufactured from tinsplate with nominal thickness as specified in Table 2.

NOTE Handles may be of metal or plastics material.

4.1.2 End lining compound and, where used, body seam cement shall be compatible with the intended contents, appropriate to the filling operation and suitable for the intended use (see Appendix B).

4.1.3 Internal lacquer, where used, shall be compatible with the intended contents (see Appendix B).

4.2 Design

4.2.1 The gross lidded capacities shall be as specified in Table 2 when determined in accordance with the method given in Appendix A.

4.2.2 The dimensions of the cans shall be as specified in Table 2 and shown in Figure 1 and Figure 2. Dimensions relating to handle position, when fitted to the 2.5 litre and 5 litre cans, shall be as specified in Table 2 and shown in Figure 2.

4.3 Construction

4.3.1 The body shall be made from one piece of tinsplate formed into a cylinder. The seam shall be either lap welded, hooked and soldered or hooked and cemented.

4.3.2 The bottom end and top closure ring shall be secured by double seaming. The double seam shall incorporate a gasket material in the form of a lining compound to ensure a leakproof joint.

4.3.3 If provided, registration features for radial positioning of the can shall be in the form of top and/or bottom indents at the body seam. The indents shall conform to the dimensions shown in Figure 1 and Figure 2 (for hooked body seam cans and welded body seam cans respectively) and shall be positioned as in *D* and *E* of Table 2.

NOTE On cans with welded body seams a single indent may extend the full height of the can, providing that the dimensions conform to those shown in Figure 2, at the positions listed in Table 2.

4.3.4 When a handle is provided, it shall be positioned as specified in Table 2 and shown in Figure 2.

NOTE Handles may be provided on 2.5 litre and 5 litre cans. Handle securing units shall provide a joint which is both leakproof and compatible with the intended contents (see Appendix B).

Table 2 — Dimensions and material specifications of cans

Designation	250 ml	500 ml	1 litre	2.5 litre	5 litre
Gross lidded capacity (in mL)					
maximum	295	580	1 125	2 750	5 500
minimum	275	550	1 075	2 690	5 375
Detailed dimensions in mm (see Figure 1 and Figure 2)					
<i>A</i> Height over double seam	74 ± 1	100 ± 1	120 ± 1	157 ± 1	233 ± 1
<i>B</i> Diameter over double seam (maximum)	78	92	116	157	179
<i>C</i> Handle position (minimum)	—	—	—	77	140
<i>D</i> Distance from base to lowest point of top indent	58 ± 0.5	84 ± 0.5	104.5 ± 0.5	142 ± 0.5	218.5 ± 0.5
<i>E</i> Distance from base to lowest point of bottom indent	12 ± 0.5	12 ± 0.5	12 ± 0.5	12 ± 0.5	12 ± 0.5
^a <i>F</i> Handle fixing position relative to body seam	—	—	—	22 ± 1 or 27 ± 1	22 ± 1 or 27 ± 1
<i>G</i> Filling diameter (nominal)	61	75	100	137	160
Tinplate nominal thickness (in mm) (minimum)					
Body	0.21	0.21	0.21	0.24	0.25
Bottom	0.21	0.21	0.22	0.25	0.26
Ring	0.24	0.25	0.26	0.26	0.28
Lid	0.23	0.24	0.25	0.26	0.26
Tinplate — nominal coating weight ^b (in g/m ²) (minimum)	E2.8/2.8	E2.8/2.8	E2.8/2.8	E2.8/2.8	E2.8/2.8

^a Handles are an optional feature on 2.5 litre and 5 litre cans but are not provided on smaller cans.

^b E2.8/2.8 has 2.8 g/m² on each surface and a total of 5.6 g/m² on both sides. Minimum average coating weight 4.9 g/m² (see BS 2920).

5 Performance

5.1 Freedom from leaks

When tested as described in Appendix C the can (without lid) shall not leak.

5.2 Fit of lid

When tested as described in Appendix D the lid, fitted fully home, shall not be displaced.

5.3 Handle strength

5.3.1 When tested as described in Appendix E the handle and handle securing units fitted to the can shall withstand loadings of:

- 400 N static load applied in line with the vertical axis of the can;
- 200 N static load applied at 90° to the vertical axis of the can;
- 1 000 N peak load applied vertically.

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

Performance shall be judged satisfactory if the handle is unbroken, still secured on both sides and capable of holding the container plus the mass of the contents. The container shall still be capable of complying with **5.1**.

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

5.3.3 Where moulded from plastics material, the handle and/or handle securing units fitted to the can shall withstand the loadings specified in **5.3.1**, when tested as described in Appendix E, after exposure to UV light in accordance with Appendix F.