



भारतीय मानक ब्यूरो

(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)

BUREAU OF INDIAN STANDARDS

(Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India)

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Review Document

Basic Details

1.	Sectional Committee No. & Title:	FAD 19-Dairy Products And Equipment
2.	IS No :	IS 1825 : 1983
3.	Title :	Specification for aluminium alloy milk cans (Second Revision)
4.	Date of Previous Review:	2011

Review Analysis

5.1 Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.

S.No.	Standard (No.)	Standard (Title)	Whether the standard has since been revised	Major changes	Action proposed
No entry made in this table					

5.2 Status of standard referred in the IS.

S.No.	Referred standards (No.)	Referred standards (Title)	Since revised IS no. of the corresponding IS	Changes in the referred Standards since last review of IS	If the corresponding IS is revised with reference to the referred Standards	Action proposed
1	IS 737-2008	Wrought aluminium and aluminium alloy sheet and strip for general engineering purposes - Specification (Fourth Revision)	IS 737: 1974 Specification for Wrought Aluminium and Aluminum alloys, Bars, Sheet and Strip (for general engineering purposes) (Second Revision)	(a)Ten new Grades 19002,24530,26388,31200,3 1500B, 52300, 52300B, 65028, 74538 and 76528 have been added. (b) A new clause on references has been incorporated. (c) Temper designations have been modified. (d) A comparison of IS and ISO designations has been given in Annex A for information for meeting domestic and export requirements. However, no changes observed in IS 737: 2008 which may affect IS under review	Yes	IS under review (IS 1825) to be updated with the latest year and title of referred IS
2	IS 733-1983	Specification for wrought aluminium and aluminium alloy bars, rods and sections (For General Engineering Purposes) (Third Revision)	IS 733: 1975 Specification for Wrought Aluminium alloys, Bars, Rods and Sections (for general engineering purposes) (Second Revision)	(a)A new high strength alloy 76528 has been included. (b) Aluminium of 99.6 purity 19600 has been included and the chemical, compositions of 19000 and 19500 aluminium have been modified to align them with the requirements of IS : 2590- 1979.(c) For both heat-treatable and non-heat treatable alloys, the properties in the '0' temper have been specified as maximum. However, no changes observed in IS 733: 1983 which may affect IS under review	Yes	IS under review (IS 1825) to be updated with the latest year and title of referred IS
3	IS 1790-1961	Method for brinell hardness test for light metals and their alloys	Standard Withdrawn	NA	NA	IS 1500: Part 1: 2019 may be substituted for IS 1790: 1961 and IS 1500: 2005 in the IS under review (IS 1825)
4	IS 2927-1975	Specification for fazing alloys (First Revision)	No Change	NA	No	None
5	IS 812-1957	Glossary of terms relating to welding and cutting of metals	No Change	NA	No	None
6	IS 7273-1974	Methods of testing fusion welded joints in aluminium and aluminium alloys	No change	NA	No	None

5.3 Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard).

S.No.	Standard (No.)	Standard (Title)	Provisions that could be relevant while reviewing the IS	Action proposed
1	IS 16440: 2016	Stainless steel milk cans - Specification	Marking clause (clause 7.1 and 7.2) and Testing clause (clause 7.0)	Marking clause and Testing clause of standard under review (IS 1825) may be updated as per marking and testing clause of IS 16440: 2016
2	IS 2: 1960	Rules for Rounding off Numerical Values (Revised)	None	None
3	IS 1500: Part 1: 2019 ISO 6506-1: 2014	Metallic materials - Brinell hardness test: Part 1 test method (Fifth Revision)	The IS 1790: 1961 and IS 1500: 2005 referred in IS under review for measurement of Brinell hardness have been withdrawn.	The latest version of IS 1500 may be referred in the IS under review (IS 1825).

5.4 Technical comments on the standard received, if any.

S.No.	Source	Clause of IS	Comment	Action proposed
No entry made in this table				

5.5 Information available on relevant technical developments

S.No.	Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed
1	BIS Licensee	Delivery type should also be allowed for 30 Litres, 40 Litres and 50 Litres as they are used in Bikes and will make easy to market too.	Clause 1.1 (IS 1825)	Comment from the licensee may be taken up to the technical committee
2	Research Papers	In strong contrast to its very mild action on the organs of the human body, the effect of milk on most metals is quite pronounced, in fact, the corrosion of metals by milk is one of the most serious corrosion problems facing modern civilization and industry. It has been known that milk in contact with iron and copper will not only acquire a metallic taste, but corrode these metals readily. Nickel, aluminum, and manganese aluminum alloys are not entirely satisfactory in high acid milk products. Furthermore, the nickel tarnishes readily and the aluminum is sensitive to alkali washing powders. The group of tinned iron, copper, galvanized iron, iron, and zinc is unfit for use in contact with milk products. Milk is known to be a complex body containing both organic and inorganic radicals. Ordinary milk tends to be slightly acidic, having a pH at room temperature of 6.6-6.7 when sweet, to 4.6 when sour. It is evident, then, that unless extreme precautions are taken immediately after the milk is drawn from the cow, it will become slightly acidic due to the lactic acid produced by bacteria and will become more prone to corrosion (Fink Rohrman, 1932).	Clause 5.3 5.4 (IS 1825)	As per IS 1825, can body and can lid are to be anodized only if required by the purchaser. However, since, aluminium alloy milk cans are prone to corrosion by liquid milk, anodization of the can body and can lid are important and the same can be made mandatory.
3	Research Papers	Aluminium is non-essential element for humans and is considered to be a toxic metal. Processing and storage of milk in aluminium containers also raise aluminium content significantly. Moreover, leaching of aluminium alloy extracts may influence the flavour and taste of the milk. Therefore, leaching or migration of aluminium alloy extracts into the liquid milk is a matter of concern (Fink Rohrman, 1932; Al Juhaiman, 2010).	Clause 7.0 (IS 1825)	Testing on leaching or migration of aluminium alloy extracts into the liquid milk may be included in IS 1825.
4	BIS Licensee	The mass of 50 litre can including lid should be 7.1 kg.	Clause 5.9 (IS 1825)	Comment from the licensee may be taken up to the technical committee
5	BIS Licensee	Different types of lid design should be added i.e. Pull type lid and Lockable type lid.	Clause 5.0 (IS 1825)	Comment from the licensee may be taken up to the technical committee

5.6 Issues arising out of changes in any related IS or due to formulation of new Indian Standard.

S.No.	Related IS (revised or new)	Related IS Title	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
1	IS 1373-1981	Tinned Mild Steel Milk Cans	This standard has been withdrawn which affects the clause 0.4 of IS 1825: 1983	(Page 3, Clause 0.4, Lines 1,2,3,4 and 5) – The sentence 'In India, at present, milk cans in use are made of tinned mild steel, aluminium alloy and stainless steel. The Indian Standards 'Specification for milk cans made of tinned mild steel' (IS 1373: 1981) has already been published, but the standard covering stainless steel milk cans has been deferred, due to shortage of stainless steel' may be substituted by 'In India, at present, milk cans in use are made of aluminium alloy and stainless steel. The requirements for stainless steel milk cans are covered in IS 1664: 2016 'Stainless Steel Milk Cans-Specification'. This standard has been formulated to cover the requirements for aluminium alloy milk cans.'	Changes may be updated by technical committee
2	IS 4905-2015	Random sampling and randomization procedures (First Revision)	IS 4905: 1968 'Methods for random sampling' referred in IS under review has been changed to IS 4905: 2015 'Random sampling and randomization procedures (First Revision)'	(Page 12, Clause A-1.3.1, Line 2) – 'IS 4905: 2015' may be substituted for 'IS 4905: 1968', (Page 12, footnote) – The sentence 'Random sampling and randomization procedures (First Revision)' may be substituted for 'Methods for random sampling'	Changes may be updated by technical committee
3	IS 16440 -2016	Stainless steel milk cans - Specification	This standard has been published while in clause 0.4 of IS 1825: 1983, it has been written that the standard covering stainless steel has been deferred. Publication of standard for stainless steel will affect the clause 0.4 of IS under review.	(Page 3, Clause 0.4, Lines 1,2,3, 4 and5) – The sentence 'In India, at present, milk cans in use are made of tinned mild steel, aluminium alloy and stainless steel. The Indian Standards 'Specification for milk cans made of tinned mild steel' (IS 1373: 1981) has already been published, but the standard covering stainless steel milk cans has been deferred, due to shortage of stainless steel' may be substituted by 'In India, at present, milk cans in use are made of aluminium alloy and stainless steel. The requirements for stainless steel milk cans are covered in IS 1664: 2016 'Stainless Steel Milk Cans-Specification'. This standard has been formulated to cover the requirements for aluminium alloy milk cans.'	Changes may be updated by technical committee
4	IS 1500-2005	Method for Brinell Hardness Test for Metallic Materials	This standard has been withdrawn which affects amendment 3 and clause 5.3 of IS 1825: 1983	Amendment No. 3 need to be replaced as IS 1500: 2005 has been withdrawn.	Changes may be updated by technical committee

5.7 Any consequential changes to be considered in other IS.

S.No.	Related IS to get impacted	Related IS Title	Requirements to be impacted
1	IS 2342-1963	Specification for manually operated milk - Can washer	Clause 0.2, Line 7
2	IS 16440 -2016	Stainless steel milk cans - Specification	Under Forward clause, line 7
3	IS 170-2020	Acetone — Specification (Fifth Revision)	Clause 2 (Year and title of IS 1825: 1983 wrongly written in IS 170: 2020 under references clause)
4	IS 9854-2018	Code for construction of milk delivery vans (First Revision)	Clause 2 (References)

Other Details

6.	Any other observation:	Based on observations from all the recently published standards: (i) Title of the standard under review may be changed from "Specification for Aluminium Alloy Milk Cans" to "Aluminium Alloy Milk Cans – Specification" (ii) A new clause on References containing all the references mentioned at points 5.2, 5.3 and 5.6 above may be incorporated after scope of the standard under review.
7.	Supporting Document:	Draft of Review Analysis of IS 1825 (Specification for Aluminium Alloy Milk Cans).pdf
8.	Recommendations - On the basis of the analysis of the info available as mentioned above consideration of sectional committee is solicited on the following aspects of the IS under review:	<div style="border: 1px solid black; padding: 5px;"><p>The standard may be revised with (i) All changes observed in standards referred in IS 1825 (Title and withdrawn) (ii) Changes in marking and testing clause as per IS 16440: 2016 (iii) Change in title format (iv) New clause on referred standards (v) Feedback and comments received from the BIS Licensees (vi) Inputs obtained from research papers</p></div>