CIRCULATED PHASE-2 REVIEW DOCUMENT (GENERATED) BY GORENAND PRASAD YADAV ON 24-05-2021 21:29:58

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:	February, 2021

Review Analysis:

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

1. Standard (No.)	2. Standard (Title)	3. Whether the standard has since been revised	4. Major changes	5. Action proposed
No entry made in this table				

5.2) Status of standard referred in the standard.

1. Referred standards (No.)	2. Referred standards (Title)	3. Since revised standard number of the corresponding standard	4. Changes in the referred Standards since last review of standard	5. Changes in the referred standard which are affecting the standard under review	6. Action proposed
No entry made in this table					

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).

1. Standard (No.)	2. Standard (Title)	3. Provisions that could be relevant while reviewing the IS	4. Action proposed
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
IS 2: 1960	Rules for Rounding off Numerical Values (Revised)	None	None
IS 1500: Part 1: 2019ISO 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Revision)	The IS 1790: 1961 and IS 1500: 2005 referred in IS under review for measurement of Brinell hardness have been withdrawn.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.

1. Source	2. Clause of IS	3. Comment	4. Action proposed
No entry made in this table			

5.5) Information available on relevant technical developments

1. Source	2. Development	3. Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	4. Action proposed
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
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.

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.
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
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.

1. Related IS (revised or new)	2. Related IS Title	3. Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	4. Changes that may be necessary in the Standards under review	5. Action proposed
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

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
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
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.

1. Related IS to get impacted	2. Related IS Title	3. Requirements to be impacted
IS 2342 : 1963	Specification for manually operated milk - Can washer	Clause 0.2, Line 7
IS 16440 : 2016	Stainless steel milk cans - Specification	Under Forward clause, line 7
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)
IS 9854 : 2018	Code for construction of milk delivery vans (First Revision)	Clause 2 (References)

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) Upload Supporting Document(s)

7.1) ARP Report	**No Document Uploaded**
7.2) Draft 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:	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

ACTION

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