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BUREAU OF INDIAN STANDARDS

MINUTES

MEETING	DAY & DATE	TIME	VENUE
Eighth Meeting of Metal Containers Sectional Committee, PGD 38	06 October 2022 Thursday	1100 h	Video Conference (Through Cisco WebEx)

1. Chairperson: Dr. N.C. Saha, In Personal Capacity (Former Director, IIP Mumbai)

2. Member Secretary: Mr. Krishna Sudheendran, Scientist-C, PGD, BIS

Members Present

3. Mr. Swapan Kumar Bhandari	Akzo Nobel India Limited, Gurugram
4. Mr. Ganesh Netha	Ball Beverage Packaging (India) Private Limited, Bengaluru
5. Mr. Raj Kumar Sharma	Blossom Industries Limited, Daman
6. Mr. Swapnil Khese	Canpack India Private Limited, Aurangabad
7. Mr. Akshay Sudame	Canpack India Private Limited, Aurangabad
8. Ms. Manisha Agarwal	Caps and Containers, Mumbai
9. Ms. Neha Parashar	Cargill India Pvt. Ltd., Gurgaon
10. Mr. Gaurav Saraogi	Chemco Plastic Industries Pvt. Ltd., Mumbai
11. Mr. Virendra Landge	Coca-Cola India Private Limited, Gurugram
12. Ms. Nishtha Chauhan	Coca-Cola India Private Limited, Gurugram
13. Mr. M. Satyanarayana	Controllerate of Quality Assurance (GS), Kanpur
14. Mr. Sunil Shankar Patil	Hindustan Petroleum Corp. Ltd, Mumbai
15. Mr. R.K. Tyagi	Hindustan Tin Works Ltd., New Delhi
16. Mr. S. Marimuthu	Indian Oil Corp. Ltd, Mumbai
17. Mr. S. Sridhar	Indian Oil Corp. Ltd, Mumbai
18. Mr. Chanchal Kumar Karmakar	JSW Steel Coated Products, Mumbai
19. Mr. Awadhesh Mishra	JSW Steel Coated Products, Mumbai
20. Mr. K.M. Shenoy	Kaira Can Company Ltd., Mumbai
21. Mr. Suresh Panchal	Kaira Can Company Ltd., Mumbai
22. Mr. Ashutosh Agarwal	Ministry of Consumer Affairs, Food and Public Distribution, New Delhi
23. Mr. Nithin Kumar Shetty	Shetron Ltd., Mumbai
24. Mr. Ravindra	Shetron Ltd., Mumbai
25. Dr. Sourajyoti Dey	The Tinplate Co. of India Ltd., Jamshedpur
26. Mr. Bablu Kumar Singh	The Tinplate Co. of India Ltd., Jamshedpur
27. Mr. Subrata Sadhu	The Tinplate Co. of India Ltd., Jamshedpur
28. Mr. Amarnath Prasad	The Tinplate Co. of India Ltd., Jamshedpur

Item 0 GENERAL

0.1 Welcome by the Member Secretary

Krishna Sudheendran, Member Secretary, PGD 38, on behalf of Bureau of Indian Standards extended warm welcome to all participants to the eighth meeting of Metal Containers Sectional Committee, PGD 38.

0.2 Opening Remarks by the Chairman

Dr. N.C. Saha, Chairperson of PGD 38, welcomed the members to the eighth meeting. He emphasized the importance of metal packaging in the future as metal is recyclable and can act as an alternative to plastic which constitutes the majority of packaging material. He remarked that the tare weight of metal is greater than plastic packaging, and therefore R&D is required to reduce the weight without reducing performance. He added that the metal packaging offers higher shelf for the products due to good barrier properties to light and moisture. He concluded by appreciating the balance in the composition with presence of convertors, users and different kind of manufacturers; and encouraged their active participation in the deliberations.

Item 1 CONFIRMATION OF MINUTES OF LAST MEETING

The Committee confirmed the minutes of 7th meeting of PGD 38 held on 20 January 2022.

Item 2 COMPOSITION OF SECTIONAL COMMITTEE

2.1 The Committee noted the composition. The current composition of the Committee is given at **Annex I** (Page 9-12).

2.2 The Committee decided to defer the decision on co-option of Steel Drum Association of India to the next meeting and requested the member secretary to seek the list of member organizations from the association.

Item 3 DRAFT STANDARDS FOR FINALIZATION

3.1 PGD 38(18690) Stainless Steel Feeding Bottle for Infants — Specification

The Committee reviewed the comments received from Mr. Anup Chandra and decided as follows.

Sl. No.	Clause/Subclause/ Para/Table/Fig. No.	Type of Comments (General/Editorial/ Technical)	Comment	Decision
1	Annex B	Technical	Specify retention period of 2.5 kg load. After that deformation to be measured, say 30 min.	The Committee considered the comment and accordingly modified the Annex B. (See **Annex II** (Page 13-14)].

2	Annex D	Technical	Remove table and give reference of IS 2500.	The Committee decided to retain the sampling method.

The Committee finalized the document with modification as given in the table above. The finalized draft is attached at **Annex III**.

3.2 PGD 38(19358) Three Piece Round Open Top Metal Cans for Foods and Beverages — Specification

The Committee finalized the document with the changes as given below. The finalized draft is attached at **Annex IV**.

Sl. No.	Clause/Fig.	Change
1.	Fig. 17 and Fig. 18	Interchange Fig. 17 and Fig.18
2.	Clause 5.1.7	Substitute 'Tinplate surface shall be oiled with dioctyl sebacate or butyl stearate oil (See IS 12591)' for 'Tinplate surface shall be oiled with dioctylsebacate'
3.	Clause 5.1.8	Delete 'Chrome level in the passivation layer in the range of 0.50 ± 0.15 µg/cm2 is recommended.'
4.	Clause 8.3.2	Replace Paragraph 1 with the following: 'The specific migration shall not exceed the maximum limit given in table below. The sample for the specific migration test shall be prepared as per IS 9845 wherein the lacquer would be exposed to the simulants. The extracted simulants shall be then detected for elements given in Sl. No. 1-8 of table below in accordance with the test method specified in IS 3025 (Part 2) or IS 3025 (Part 65). DEHP shall be measured as per the method specified in ISO 18856.'

3.3 PGD 38(19359) Lacquers and Decorative Finishes for Open Top Metal Cans for Foods and Beverages — Specification

The Committee reviewed the comments received from Hindustan Tin Works and decided as follows.

Sl. No.	Clause/Subclause/ Para/Table/Fig. No.	Type of Comments (General/Editorial/ Technical)	Comment	Decision
1	Clause A-4.1	Technical	Substitute 'Area' for '0.25'.	The Committee accepted the comment. In addition, the committee modified the item (a) and item (b) of clause A-4.1. The modified clause A-4.1 is given in **Annex II** (Page 13-14).

2	Clause A-10.4	Technical	Insert the following at the end: 'This is applicable for double coat lacquer application only.'	The Committee discussed and decided to add values for single coat lacquer application as the existing table was applicable only to double coat lacquer.

Also, the Committee decided to replace clause 5.5.2.1 with the following:

'The specific migration shall not exceed the maximum limit given in Table 5. The sample for the specific migration test shall be prepared as per IS 9845 wherein the lacquer would be exposed to the simulants. The extracted simulants shall be then detected for elements given in Sl. No. 1-8 of Table 5 in accordance with the test method specified in IS 3025 (Part 2) or IS 3025 (Part 65). DEHP shall be measured as per the method specified in ISO 18856.'

The Committee finalized the document with modifications as given above. The finalized draft is attached at **Annex V**.

3.4 PGD 38(20181) Aluminium Cans for Beverages — Specification

The Committee finalized the document. The finalized draft is attached at **Annex VI**.

3.5 PGD 38(20182) Aluminium Cans for Packaged Natural Mineral Water and Packaged Drinking Water — Specification

The Committee decided to delete 'This test is applicable for cans used for non-carbonated beverages' from clause 7.1.3. With the incorporation of this correction, the Committee finalized the document. The finalized draft is attached at **Annex VII**.

Item 4 COMMENTS ON PUBLISHED STANDARDS

4.1 Comments from the Panel PGD 38/P7 'Metal Drums and Closures'

4.1.1 The Committee reviewed the comments on IS 1783 (Part 1) : 2014 'Drums large, fixed ends — Specification: Part 1 Grade A drums (fourth revision)', and accepted the comments with modification as given below. Based on this, the Committee decided to amend this standard accordingly and wide circulate the draft amendment for 30 days. In case no comments are received, the draft amendment may be finalized with the approval of the Chairperson.

Sl. No.	Clause/Subclause/ Paragraph/Table/Figure	Proposed Change	Decision
1.	Clause 2 References	Substitute '513 (Part 1) : 2016 Cold reduced carbon steel sheet and strip: Part 1 Cold forming and drawing purpose (*sixth revision*)' for '513 : 2008 Cold reduced low carbon steel sheets and strips (*fifth revision*)'.	Accepted
2.	Clause 2 References	Substitute '1784 : 2020 Screwed Closures for Drums — Specification (*fourth revision*)' for '1784 : 1998 Screwed closures for drums (*third revision*)'.	Accepted
3.	Clause 6 Materials for type 1 and type 2 drum	Substitute 'IS 513 (Part 1)' for 'IS 513'.	Accepted
4.	Clause 9.2.3	Substitute the following for the existing clause: "The drum after the test shall be subjected to air leakage test as per 9.1. The drum shall not show any sign of leakage. This test is applicable for Grade A, Type 1 only. In case of drums used for defence applications, this test shall be applicable for Grade A, Type 2 drums also." [*Existing Clause*: "The drum after the test shall be subjected to air leakage test as per 9.1. The drum shall not show any sign of leakage (Applicable for Grade A, Type 1 only)."]	The Committee decided that all drums shall be subjected to leakage test after the drop test, irrespective of its applications. Accordingly, the Committee decided to delete the following from clause 9.2.3: '(Applicable for Grade A, Type 1 only)'
5.	Clause 12	Substitute the following for the existing clause: '**12 BIS Certification Marking** The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.'	Accepted

4.1.2 The Committee reviewed the comments on IS 1783 (Part 2) : 2014 'Drums large, fixed ends — Specification: Part 2 Grade B drums (fourth revision)', and accepted all the proposed changes as given below. Based on this, the Committee decided to amend this standard accordingly and wide circulate the draft amendment for 30 days. In case no comments are received, the draft amendment may be finalized with the approval of the Chairperson.

Sl. No.	Clause/Subclause/ Paragraph/Table/Figure	Proposed Change
1.	Clause 1 Scope	Substitute '0.90 mm or 1.00 mm' for '1.00 mm'.
2.	Clause 2 References	Substitute '513 (Part 1) : 2016 Cold reduced carbon steel sheet and strip: Part 1 Cold forming and drawing purpose (*sixth revision*)' for '513 : 2008 Cold reduced low carbon steel sheets and strips (*fifth revision*)'.
3.	Clause 2 References	Insert the following reference at the appropriate place: '1784 : 2020 Screwed Closures for Drums — Specification (*fourth revision*)'
4.	Clause 6 Material	Substitute 'IS 513 (Part 1)' for 'IS 513'.
5.	Clause 6 Material	Substitute '0.90 mm or 1.00 mm' for '1.00 mm'.
6.	Clause 11	Substitute the following for the existing clause: '**11 Marking** Each drum shall be marked legibly and indelibly with the following particulars by embossing with raised markings or screen printing on the bottom: a) Indicating the source of the manufacturer, b) Grade and type of the drum, c) Thickness, in case of Type 2 drums, and d) Any other information as required by the purchaser.'
7.	Clause 12	Substitute the following for the existing clause: '**12 BIS Certification Marking** The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act,* 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.'
8.	Figure 2	Substitute 'Drum with Triple/Spiral Seam' for 'Drum with Double Seam'

4.2 The Committee reviewed the comments provided on IS 1783 (Part 1) : 2014 and IS 1783 (Part 2) : 2014 by CQA(GS) as given below and decided to not include the proposed clauses on end use of drums in these standards.

Sl. No.	Clause/Subclause/ Paragraph/Table/ Figure	Types of Comment	Justification	Proposed Change
1.	New Clause in IS 1783 (Part 1) : 2014 Grade A Drums	Technical	New clause to be added to specify end use of drums.	Add new clause: Type 1 drums are recommended for highly hazardous, gaseous products and liquefied gases, etc. Type 2 drums are recommended for packing of DHPP (Diesel High Pour Point), 87 MT (Gasoline), lubricants, oils, solvents, fuels, etc.
2.	New Clause in IS 1783 (Part 2) : 2014 Grade B Drums	Technical	New clause to be added to specify end use of drums.	Add new clause: Type 1 drums are recommended for packing of DHPP (Diesel High Pour Point), 87 MT (Gasoline), lubricants, oils, solvents, fuels, etc. Type 2 drums are recommended for packing of lubricants, oils, solvents, etc.

Item 5 PROGRAMME OF WORK

5.1 The Committee noted the programme of work.

5.2 Revision of Indian Standards Published Before 2000

The Committee approved the revision of the following standards and requested the panel/member as given below to provide the draft revision.

Sl. No.	*IS No.*	*Title*	*Allocated to*
1	IS 1406 : 1995	Rectangular tins for liquids — Specification (Fourth Revision)	Member Secretary
2	IS 2087 : 1988	Specification for square tins for general purposes (First Revision)	Member Secretary
3	IS 2134 : 1981	Specification for round tins for general purposes (Second Revision)	Member Secretary
4	IS 2474 : 1982	Specification for metal closures for drums (First Revision)	PGD 38/P7
5	IS 3575 : 1993	Bitumen drums — Specification (Third Revision)	PGD 38/P7

6	IS 3680 : 1987	Specification for round printing ink containers (First Revision)	PGD 38/P3
7	IS 4638 : 1981	Specification for seamless rectangular fish cans (First Revision)	PGD 38/P1
8	IS 5241 : 1987	Specification for shoe polish containers (First Revision)	Member Secretary
9	IS 5682 : 1991	Open top drums and kegs — Specification (Second Revision)	PGD 38/P7
10	IS 8996 : 1988	Specification for 20-litre steel jerricans (First Revision)	PGD 38/P3

Item 6 INTERNATIONAL ACTIVITY

The Committee noted the information.

Item 7 DATES AND PLACE FOR THE NEXT MEETING

The Committee decided to conduct the next meeting in January 2023 through video conferencing.

Item 8 ANY OTHER BUSINESS

The meeting ended with a hearty vote of thanks to the Chairperson.

ANNEX I
(*Item* 2.1)

COMPOSITION OF METAL CONTAINERS SECTIONAL COMMITTEE, PGD 38

6th Meeting – 25 June 2021, Virtual Meeting
7th Meeting – 20 January 2022, Virtual Meeting
8th Meeting – 06 October 2022, Virtual Meeting

Sl. No.	Name of the Organization	Representative Principal/Alternate/YP	Attendance			
			6th	7th	8th	Cumulative
1.	In Personal Capacity (Former Director, Indian Institute of Packaging)	Dr. N.C. Saha **Chairperson**	Y	Y	Y	3/3
2.	Ace Cans Manufacturing Co., Mumbai	Mr. Kanak Raj Parmar	Y	N	N	1/3
		Mr. Dinesh Parmar				
3.	Akzo Nobel India Limited, Gurugram	Manoj Kumar Sharma	-	Y	Y	2/2
		Swapan Kumar Bhandari				
4.	Asian Paints Limited, Mumbai	Mr. Navninder Singh	Y	Y	N	2/3
		Ms. Shweta Tiwari				
5.	Balmer Lawrie & Co. Ltd., Mumbai	Mr. R.S. Patel	N	N	N	0/3
		Mr. Amit Mitra				
6.	Balmer Lawrie-Van Leer Ltd., Mumbai	Mr. Tushar Shirwalkar	N	N	N	0/3
7.	Ball Beverage Packaging (India) Private Limited, Bengaluru	Mr. Ganesh Netha	-	N	Y	1/2
8.	Blossom Industries Limited, Daman	Mr. Raj Kumar Sharma	-	N	Y	1/2
9.	Canpack India Private Limited, Aurangabad	Mr. Swapnil Khese	-	Y	Y	2/2
		Mr. Akshay Sudame				
		Mr. Anoop Kapadia				
10.	Caps and Containers, Mumbai	Mr. O.P. Agarwal	Y	Y	Y	3/3
		Ms. Manisha Agarwal				
11.	Cargill India Pvt. Ltd., Gurgaon	Mr. Sekhar Pal	Y	N	Y	2/3
		Ms. Neha Parashar				
12.	Central Insecticide Laboratory, Faridabad	Dr. J.P. Singh	Y	Y	N	2/3
		Dr. Brijesh Tripathi				
13.	Chemco Plastic Industries Pvt. Ltd., Mumbai	Mr. Gaurav Saraogi	Y	Y	Y	3/3
		Ms. Rupande Sampat				
14.	Coca-Cola India Private Limited, Gurugram	Mr. Virendra Landge	-	Y	Y	2/2
		Ms. Nishtha Chauhan				

Sl. No.	Name of the Organization	Representative Principal/Alternate/YP	Attendance			
			6th	7th	8th	Cumulative
15.	Controllerate of Quality Assurance (GS), Kanpur	Mr. M. Satyanarayana	Y	Y	Y	3/3
		Mr. Banmali Behra				
16.	DS Group, Noida	Mr. Sanjay Gupta	Y	N	N	1/3
17.	Hindustan Petroleum Corp. Ltd, Mumbai	Mr. Ravi Kumar	Y	Y	Y	3/3
		Mr. Sunil Shankar Patil				
18.	Hindustan Tin Works Ltd., New Delhi	Mr. Gajendra Singh	Y	Y	Y	3/3
		Mr. R.K. Tyagi				
19.	Indian Institute of Packaging (IIP), Mumbai	Prof.(Dr.) Tanweer Alam	Y	N	N	1/3
		Mr. Madhab Chakraborty				
20.	Indian Oil Corp. Ltd, Mumbai	Mr. S. Marimuthu	Y	Y	Y	3/3
		Mr. S. Sridhar				
		Ms. Rani Dixit				
21.	JSW Steel Coated Products, Mumbai	Mr. Abhijit Chivane	Y	Y	Y	3/3
		Mr. Chanchal Kumar Karmakar				
		Mr. Awadhesh Mishra				
22.	Kaira Can Company Ltd., Mumbai	Mr. K.M. Shenoy	Y	Y	Y	3/3
		Mr. Suresh Panchal				
23.	Metal Closures Private Limited, Bengaluru	*Nomination awaited*	-	-	-	0/0
24.	Ministry of Consumer Affairs, Food & Public Distribution, New Delhi	Mr. B.N. Dixit	N	N	Y	1/3
25.	Nestle India Ltd., Gurgaon	Mr. Biswajit Basu	Y	N	N	1/3
		Mr. Barun Banerjee				
26.	PPG Asian Paints Private Limited, Mumbai	Mr. Sanjay Ghemad	N	N	N	0/3
27.	Recon Machine Tools Pvt. Ltd., Mumbai	Mr. P.A. Pai	Y	Y	N	2/3
		Mr. Ashwin Pai				
28.	Shetron Ltd., Mumbai Ravindra	Mr. Kartik Nayak	Y	Y	Y	3/3
		Mr. Nithin Kumar Shetty				
29.	The Tinplate Co. of India Ltd., Jamshedpur	Dr. Sourajyoti Dey	Y	Y	Y	3/3
		Mr. Bablu Kumar Singh				
		Mr. Subrata Sadhu				
30.	Valspar (India) Coatings Corporation Private Limited, Bengaluru	Mr. Rajat Bhattacharjee	Y	Y	N	2/3
		Mr. Sanjay Tyagi				

PGD 38/P8 'Open Top Cans'

S.N.	*Organization*	*Representative*
1	Shetron Limited, Mumbai	Mr. Kartik Nayak
2	Hindustan Tin Works Limited, New Delhi	Mr. Rajeev Tyagi
3	Kaira Can Company Limited, Mumbai	Mr. K.M. Shenoy (Convenor)
4	The Tinplate Company of India Limited, Jamshedpur	Mr. Amarnath Prasad
5	Valspar (India) Coatings Corporation Private Limited, Bengaluru	Mr. Rajat Bhattacharjee
6	JSW Steel Coated Products, Mumbai	Mr. Chanchal Kumar Karmakar

PGD 38/P2 'Aluminium Container for Beverages'

Scope: Formulation of new standard on aluminium container for drinking water and revision of IS 14407

S.N.	*Organization*	*Representative*
1	Coca-Cola India Private Limited, Gurugram **(Convenor)**	Mr. Virendra Landge
2	Akzo Nobel India Limited, Gurugram	Mr. Swapan Bhandari
3	Ball Beverage Packaging (India) Private Limited, Bengaluru	Mr. Ganesh Netha
4	Blossom Industries Limited, Daman	Mr. Raj Kumar Sharma
5	Canpack India Private Limited, Aurangabad	Mr. Swapnil Khese
6	Coca-Cola India Private Limited, Gurugram	Ms. Nishtha Chauhan
7	Hindalco Industries Limited, Mumbai	Mr. Gaurav Mahajan
8	Nestle India Limited, Gurgaon	Mr. Biswajit Basu
9	PPG Asian Paints Private Limited, Mumbai	Mr. Sanjay Ghemad
10	Valspar (India) Coatings Corporation Private Limited, Bengaluru	Mr. Rajat Bhattacharjee

PGD 38/P3 'Tinplate Conipails and Cylindrical Containers for Paint'

Scope: Formulation of new standard on conipails for paint and revision of related standards

S.N.	*Organization*	*Representative*
1	Asian Paints Limited, Mumbai **(Convenor)**	Mr. Navninder Singh
2	Chandra Container Manufacturers, Hyderabad	-
3	Hindustan Tin Works Limited, New Delhi	Mr. Rajeev Tyagi
4	JSW Steel Coated Products, Mumbai	Mr. Chanchal Karmakar
5	PPG Asian Paints Private Limited, Mumbai	Mr. Sanjay Ghemad
6	Shetron Limited, Mumbai	Mr. Kartik Nayak
7	The Tinplate Company of India Limited, Jamshedpur	Mr. Bablu Kumar Singh

PGD 38/P4 'Lacquer and Coating for Food Cans'

S.N.	*Organization*	*Representative*
1	Valspar (India) Coatings Corporation Private Limited, Bengaluru **(Convenor)**	Mr. Rajat Bhattacharjee
2	Akzo Nobel India Limited, Gurugram	Mr. Swapan Bhandari
3	Hindustan Tin Works Limited, New Delhi	Mr. Rajeev Tyagi
4	Kaira Can Company Limited, Mumbai	Mr. Suresh Panchal
5	Nestle India Limited, Gurgaon	Mr. Biswajit Basu
6	PPG Asian Paints Private Limited, Mumbai	Mr. Sanjay Ghemad
7	SGS India Private Limited, Mumbai	Mr. Kapil Patil
8	Shetron Limited, Mumbai	Mr. Kartik Nayak

PGD 38/P5 'Stainless Steel Feeding Bottles'

S.N.	*Organization*	*Representative*
1	Chemco Plastic Industries Private Limited, Mumbai **(Convenor)**	Mr. Gaurav Saraogi
2	Dev Enterprises, Thane	Mr. Dilip Jain
3	Jindal Stainless (Hisar) Limited, Hisar	Mr. Narasimha Rao

PGD 38/P6 'Aerosol Containers'

S.N.	*Organization*	*Representative*
1	One Asia Network India Private Limited, Mumbai **(Convenor)**	Mr. Milind Vaidya
2	Bharat Containers (Nagpur) Private Limited, Mumbai	Mr. Hemant Kanoria

PGD 38/P7 'Metal Drums and Closures'

Scope: Review of the existing Indian Standards on metal drums and closures

S.N.	*Organization*	*Representative*
1	Controllerate of Quality Assurance (GS), Kanpur **(Convenor)**	Mr. M. Satyanarayana
2	Balmer Lawrie & Co. Ltd., Mumbai	Mr. RS Patel
		Mr. Amit Mitra
3	Balmer Lawrie-Van Leer Ltd., Mumbai	Mr. Tushar Shirwalkar
4	Hindustan Petroleum Corp. Ltd, Mumbai	Mr. Sunil Shankar Patil
5	Indian Oil Corp. Ltd, Mumbai	Mr. S Marimuthu

ANNEX II
(*Item* 3.1 and 3.3)

MODIFICATIONS IN DRAFT INDIAN STANDARDS

1) PGD 38(18690) Stainless Steel Feeding Bottle for Infants — Specification

a) Substitute the clause B-1 with the following:

'B-1 PROCEDURE

Place the sample specimen of the steel feeding bottle in horizontal condition on the platform given in the compression testing equipment as shown in Fig. 2. Apply the compressive load in the middle part of the body or to the part having the maximum diameter of a stainless feeding bottle by the use of compressive jig. Gradually increase the top load and apply on the top horizontal surface of the bottle by maintaining a speed of the machine at the rate of 10 mm per minute for a period of one minute up to the maximum load of 2.5 kgf to assess the withstanding capacity of the steel bottle without any deformation.

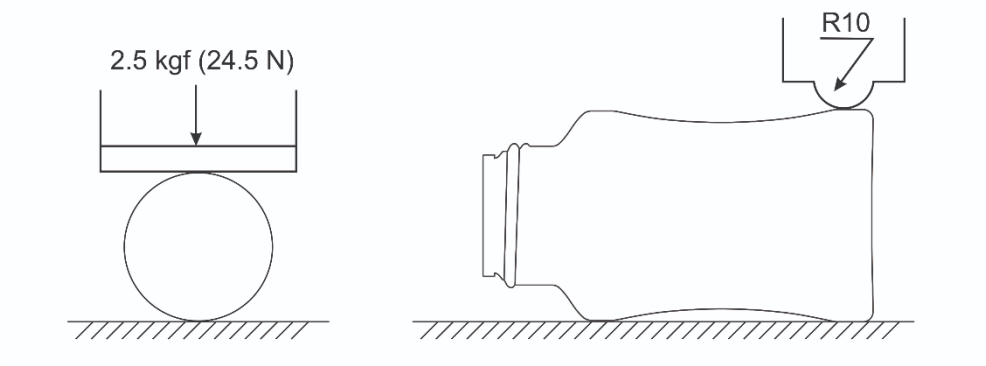

Fig. 2 Compression Jig

b) Substitute the clause B-2 with the following:

'**B-2 ACCEPTANCE CRITERIA**

There shall not be any dent or deformation on the body of the steel bottle after applying the load of 2.5 kgf.'

2) PGD 38(19359) Lacquers and Decorative Finishes for Open Top Metal Cans for Foods and Beverages — Specification

a) Substitute the clause A-4.1 with the following:

'A-4.1 Procedure

a) Take a specimen sample with a defined area and weigh it in a balance up to two decimal and record it as W_1.
b) After that, remove the coating completely by rubbing with any solvent (e.g., acetone, ammonia aniline) without damaging the metal substrate.
c) Weigh specimen sample again and record it as W_2.
d) Calculate the value of dry film weight (*DFW*) from the following formula:

$$DFW = \frac{W_1 - W_2}{Area}$$

b) Substitute the table in clause A-10.4 with the following:

Trade Size	*Can Diameter (in mm)*	*Can Height (in mm)*	*Inside Lacquered Cans (Double Coat Lacquer)*		*Inside Lacquered Cans (Single Coat Lacquer)*	
			Max Reading in One Can (in mA)	*Average Reading of Cans (in mA)*	*Max Reading in One Can (in mA)*	*Average Reading of Cans (in mA)*
202	52	104	25	15	100	60
211	65	104	30	20	120	80
300	73	116	35	25	140	100
401	99	119	40	30	160	120
603	153.35	177	60	45	240	180