



उत्पाद मैनुअल
भा. मा. 17803: 2022 के अनुसार
पेयजल की बोतल (धात्विक) के लिए
दस्तावेज संख्या-पी एम/आई एस 17803/6/जून 2025

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिश्रिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज का उपयोग किया जा सकता है।

**PRODUCT MANUAL FOR
POTABLE WATER BOTTLES
(METALLIC)
ACCORDING to IS 17803:2022**

Document No.-PM/IS 17803/6/ June 2025

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

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1.	Product	:	IS 17803: 2022
	Title	:	Potable Water Bottles (Metallic)
	No. of Amendments	:	Two
2.	Sampling Guidelines:		
a)	Raw material	:	Please refer ANNEX –A
b)	Grouping guidelines	:	Please refer ANNEX –B
c)	Sample Size	:	3 Nos., 4 Nos. (1 additional sample For test of Cord and Cord chain, if applicable)
3.	List of Test Equipment	:	Please refer ANNEX –C
4.	Scheme of Inspection and Testing	:	Please refer ANNEX –D
5.	Possible tests in a day	:	Capacity test (Cl. 7.2), Impact resistance (7.3.1, 7.3.2), Test for strength of shoulder strap (Cl. 7.4), Test for Cord chain (Cl. 7.6), Leakage test (Cl. 7.7), Lever, Device for operating or regulating flow test (Cl. 7.9), Stability of bottle (7.10), Load test (7.11)
6.	Scope of the Licence:	:	Licence is granted to use Standard Mark as per IS 17803:2022 with the following scope:
	Name of product	:	Potable Water Bottles (Metallic)
	Material of body	:	Copper/ Stainless Steel/ Aluminum
	Nature of coating on Aluminium body	:	Anodized/Hard anodized/Coated
	Capacity	:	Up to and including....ml
	Accessories	:	With/without auxiliary closure, With/Without Cord chain, With/Without Shoulder strap or cord, With/Without Lever for operating or regulating flow

Annex A
Raw Material (As per Cl. 5 and 7.1 of IS 17803: 2022)

Raw material/ Component	Requirement
Welding electrode	Grade 308L as per IS 5856
Copper Sheet	Shall conform to chemical requirements of any of following designations of IS 191: Cu-ETP, Cu-FRHC, Cu-CATH-2 <i>Minimum sheet thickness for bottle- 0.5 mm</i> <i>Minimum sheet thickness of lid and cap- 0.5 mm</i>
Stainless steel	Shall conform to Grade N1, N2 as per IS 15997 or IS 6911 or grade 304 series as per IS 5522 or IS 6911 or 316/316L as per IS 6911 <i>Minimum sheet thickness for bottle- 0.4 mm</i> <i>Minimum sheet thickness of lid and cap- 0.4 mm</i>
Aluminum	Grade 19000, 19500 or 31000 of IS 737
Stopper	As per Cl. 7.1.3 of IS 17803: 2022
O-Ring or Washer	Food grade silicone – IS 3565
Auxiliary closure	As per Cl. 7.1.4 of IS 17803: 2022

Note: During independent testing of factory and market surveillance samples, body of bottle shall also be subjected to chemical testing. The same shall also be specifically mentioned in the test request of sample.

ANNEX B

Grouping Guidelines

1. Potable Water Bottles as per IS 17803: 2022 are classified in to different varieties based on following:

(A)Material of Bottle:

- Copper
- Stainless steel
- Aluminum

(B) Nominal Capacity

(C) Coating:

- Anodized
- Hard Anodized

(D) Accessories

- With or without auxiliary closure,
- With or without Cord chain,
- With or without Shoulder strap or cord,
- With or without Lever for operating or regulating flow

2. Considering the above, samples of maximum capacity for each material shall be drawn to cover the capacities up to and including capacity and materials of Bottles tested. Also, For coated bottles, separate sample of each type of coating shall be tested to cover all types of coating. Further, if product variety with an accessory, as mentioned above, is tested then, product variety without that accessory may also be covered without separate testing. For example, if bottle with auxiliary closure is tested then bottle without auxiliary closure may also be covered OR if bottle with shoulder strap is tested then bottle without shoulder strap may also be covered. Also, for inclusion of bottle with an accessory, only relevant additional test as per IS 17803: 2022 may be done if bottle without that accessory is already covered in scope.

3. The Firm shall declare the varieties of Bottles they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

4. During the operation of the Licence, BO shall ensure that all the material and capacities covered in the Licence are tested in rotation, to the extent possible.

ANNEX C
List of Test Equipment

Indicative list of major test equipment required to test as per the Indian Standard

S.no.	Tests used in with Clause Reference		Test Equipment
	Cl. No.	Test	
1.	7.2	Capacity	Calibrated jars
2.	7.3	Impact resistance test	Hard wood board of 30 mm or higher thickness, Suitable Fixture for pendulum impact test
3.	7.4	Test for strength of shoulder strap	Weights, Arrangement for loading as per Fig. 2 of IS 17803: 2022, Scale
4.	7.5	Test for Cord	Steel balls of appropriate mass
5.	7.6	Test for Cord Chain	Steel balls of appropriate mass
6.	7.7	Leakage test	Surfactant, Torque wrench, Compressed air, Pressure gauge
7.	7.8	Staining test	Soapy water, Acetone or methylated spirit, Glacial acetic acid, Distilled water, Sodium chloride
8.	7.9	Lever, Device for operating or regulating flow test	Arrangement to operate lever
9.	7.10	Test for stability of Bottle	Inclined plane
10.	7.11	Load test	Load
11.	7.12	Test for polymer material	Testing arrangement as per IS 9845 and IS 8688
12.	7.13	Test with RO Water/distilled water for physical requirements as per IS 10500	Testing arrangement as per various parts of IS 3205
13.	7.1.2, Annex A	Test for leaching	Stimulants and instruments/equipment as per Annex A of IS 17803
14.	7.1.2, Annex B	Sensorial test	Stimulant as per Annex B of IS 17803

The above list is indicative only and may not be treated as exhaustive

ANNEX D**Scheme of Inspection and Testing****1. QUALITY ASSURANCE PLAN**

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit i.e. Batch and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4 below.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 **Control Unit:** For the guidance of manufacturers, the recommended definition of Control Unit is quantity of Bottles of same nominal capacity and material, manufactured under similar conditions from same consignment of raw material in a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in-house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer, and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in-house as “R” or other tests which can be sub-contracted as “S”. Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as “R” in Column 2 of Table 1) also is optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. LABELLING AND MARKING – As per the requirement of IS 17803:2022. The Standard Mark, as given in the Schedule of the licence, shall be marked on each Bottle provided always that the product thus marked conforms to all the requirement of the specification. In addition, the licence no. CM/L-_____ and details of BIS website shall be marked at an appropriate place on product or package as follows: “For details of BIS certification please visit www.bis.gov.in”.

4. REJECTION - All the production which conforms to the Indian Standard and covered under scope of the licence shall be marked with Standard Mark. Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act,2016

TABLE 1

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub- contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
7.1	Material	7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.5	IS 17803 IS 5522 IS 6911 IS 737	S	One	Each Consignment	No further testing is required if material is received with test certificate or is ISI Marked. See Note 3 also.
7.12	Test for polymer material	7.12	IS 17803 IS 9845 IS 8688	S	One	Each consignment	No testing is required, if material received with test certificate or is ISI Marked
5	Manufacture and Workmanship	5	IS 17803	R	Manufacturer shall exercise adequate levels of control to ensure that entire production should conform to the Standard. Appropriate records of testing indicating conformity shall be maintained		
1.2	Air Pressure test (for Aluminum bottle)	1.2 4.5	IS 17803 IS 3603	R	One	Each Control Unit	--
7.2	Capacity test	7.2	IS 17803	R	One	Each Control Unit	
7.3	Impact resistance	7.3.1, 7.3.2	IS 17803	S	One	Once in 3 months	
7.4	Test for strength of Shoulder strap, if applicable	7.1.6 7.4	IS 17803	S	One	Once in 3 months	One sample of each capacity produced in 3 months shall be tested
7.5	Test for Cord, if applicable	7.1.6 7.5	IS 17803	S	One	Once in 3 months	

7.6	Test for Cord chain, if applicable	7.1.7 7.6	IS 17803	S	One	Once in 3 months	
7.7	Leakage test	7.7.1, 7.7.2	IS 17803	R	One	Each Control Unit	
7.8	Staining test (stainless steel bottle only)	7.8	IS 17803	S	One	Once in 3 months	
7.9	Lever, device for operating or regulating flow test	7.9	IS 17803	S	One	Once in 3 months	
7.10	Test for stability of bottle	7.10	IS 17803	R	One	Each Control Unit	
7.11	Load test	7.11	IS 17803	R	One	Once in a month	One sample of each capacity produced in a month shall be tested
7.13	Test with RO Water/distilled water for physical requirements as per IS 10500	7.13	IS 17803 IS 10500	S	One	Once in 6 months	Testing shall be done whenever there is change in supplier of material
<i>Additional tests for Aluminum bottles</i>							
7.1.8	<i>Test for anodic coating of Aluminum bottle</i>						
	Thickness of coating	7.1.8 9	IS 17803 IS 1868	S	One	Once in 3 months	
	Quality of sealing	7.1.8 10	IS 17803 IS 1868	S	One	Once in 3 months	
	Colour and appearance	7.1.8 11	IS 17803 IS 1868	R	Manufacturer shall exercise adequate levels of control to ensure that entire production should conform to the Standard. Appropriate records of testing indicating conformity shall be maintained		
	Corrosion resistance	7.1.8 12	IS 17803 IS 1868	R	One	Once in 3 months	

	Abrasion resistance, If required by purchaser	7.1.8 13	IS 17803 IS 1868	S	One	Once in 3 months	
	Resistance to crazing by deformation	7.1.8 14	IS 17803 IS 1868	S	One	Once in 3 months	
	Fastness to light	7.1.8 15	IS 17803 IS 1868	S	One	Once in 3 months	
	Light reflection properties	7.1.8 16	IS 17803 IS 1868	S	One	Once in 3 months	
	Electrical Breakdown potential, if required by purchaser	7.1.8 17	IS 17803 IS 1868	S	One	Once in 3 months	
7.1.8	Test for hard anodic coating of Aluminum bottle						
	Finish and appearance	7.1.8 5	IS 17803 IS 6057	R	Manufacturer shall exercise adequate levels of control to ensure that entire production should conform to the Standard. Appropriate records of testing indicating conformity shall be maintained		
	Colour	7.1.8 8	IS 17803 IS 6057	R			
	Thickness of coating	7.1.8 6	IS 17803 IS 6057	S	One	Once in 3 months	
	Abrasion resistance	7.1.8 7	IS 17803 IS 6057	S	One	Once in 3 months	
	Electrical Breakdown voltage, if required by purchaser	7.1.8 9	IS 17803 IS 6057	S	One	Once in 3 months	
	Hardness	7.1.8 7	IS 17803 IS 6057	S	One	Once in 3 months	
7.1.9	Tests for external coating on bottles						
	Thickness of coating	7.1.9 7.2	IS 17803 IS 9730	S	One	Once in 3 months	
	Salt water corrosion	7.1.9 7.4	IS 17803 IS 9730	S	One	Once in 3 months	

	Adhesion test	7.1.9 7.5	IS 17803 IS 9730	S	One	Once in 3 months	
	Limit of lead and cadmium	7.1.9 5	IS 17803 IS 9806	S	One	Once in 6 months	
7.1.2	<i>Additional tests for Stainless Steel bottles made from grades N1, N2 of IS 15997 and welding is done in the food contact area of container</i>						
7.1.2	Test for leaching	7.1.2, Annex A	IS 17803	S	One	Once in 3 months	
7.1.2	Sensorial test	7.1.2, Annex B	IS 17803	S	One	Once in 3 months	