



www.bis.gov.in

उत्पाद मैनुअल

पैकेजबंद खनिज जल और पैकेजबंद पेय जल की पैकेजबंदी के लिए प्लास्टिक बोतले/धारक — विशिष्ट

IS 15410: 2025 के अनुसार

PRODUCT MANUAL

Plastic Bottles/Containers for Packaging of Natural Mineral Water and Packaged Drinking Water —
Specification

ACCORDING TO IS 15410: 2025

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो) अनुरूपता मूल्यांकन (विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity 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.

1.	मानक संख्या IS No.	:	IS 15410 : 2025
	शीर्षक Title	:	Plastic Bottles/Containers for Packaging of Natural Mineral Water and Packaged Drinking Water — Specification
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	a) Manufacturer to submit test report/ test certificate in compliance to Clause 4.1 of IS 15410: 2025. b) Manufacturer to submit declaration/ undertaking in compliance to Clause 4.2.1 of IS 15410: 2025 for the material used for top lids
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to Annex-A
c)	नमूने का परिमाण Sample Quantity	:	10 Filled + 6 Empty + 30 Caps for each type (Bottle, Jar glasses, cups) of containers (Declaration of wall thickness shall be obtained during the drawl of sample)

d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request		i) Name of the Product: ii) Capacity iii) Wall thickness Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex-B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
			All tests except migration and water potability tests are possible in a day.
6.	लाइसेंस का दायरा /Scope of the Licence:		
	"Licence is granted to use Standard Mark as per IS 15410: 2025 with the following scope:		
	Name of the product		Plastic Bottles/Containers for Packaging of Natural Mineral Water and Packaged Drinking Water
	Material		PE/PET/PP/PC/ polyethylene terephthalate, polypropylene, polycarbonate
	Type of Container		Bottle, Jar, Glasses, Cups etc
	Nominal Capacity		In ml or litres (pack sizes)

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN,9, BAHADUR SHAH ZAFAR MARG,
NEW DELHI-110002

ANNEX-A
GROUPING GUIDELINES

1. The manufacturer shall declare the material, type of container, nominal capacity of container and wall thickness (Top, Middle and Bottom) of container which they intend to cover in their scope of licence.
2. The sample of each type of material (*PE/PET/PP/PC/ Polyethylene terephthalate, Polypropylene, Polycarbonate*) and each type of container (*Bottle, Jar, glasses, cups etc*) shall be subjected to testing for considering grant of licence/inclusion of that type. However, sample of the highest nominal capacity of each type of material and each type of container may be subjected to testing for considering grant of licence/inclusion of that material and type of container, for all pack sizes.
3. Further, test requirement for capacity (as per Clause 4.4 of IS 15410: 2025) may be ensured through in-house test report for all pack sizes, to be considered under the scope of licence.
4. It shall be ensured that the firm is having all the necessary manufacturing and testing facilities for the types to be included in the licence.
5. During the operation of licence, BO shall ensure that all the nominal capacities of Plastics Bottles / Containers for Packaged Natural Mineral Water and Packaged Drinking Water covered in the license are drawn for independent testing on rotation over a period of time.
6. Scope of licence shall be restricted based on the manufacturing and testing facilities available.
7. During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible.

ANNEX – B

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sr. No.	Tests used in with Clause Reference	Test equipment
1.	Capacity Cl. 4.4	– Suitable plastic disc to cover the neck face of the container – Suitable weighing balance to an accuracy of 0.1g – Equipment to maintain temperature $27\pm 2^{\circ}\text{C}$ (or) - Suitable measuring cylinders
2.	Wall Thickness Cl. 4.5	Ball ended micrometer or dial caliper gauge fitted with spherical anvils, to an accuracy of 0.02mm
3.	Transparency Cl. 4.6.1.1	Integration ball type light transmittance measurement device as described in Annex B of IS 15410.
4.	Leakage Test Cl. 4.6.2	<u>Closure leakage test</u> – Blotting paper – Stop watch <u>Vibration Leakage Test</u> Device /methods meeting conditions mentioned in Cl.6.2.1 of IS 2798 <u>Air Pressure Leakage Test</u> Device /methods meeting conditions mentioned in Cl.6.3.2 of IS 2798
5.	Drop Test Cl. 4.6.3	– Equipment /methods meeting conditions mentioned in Cl.8.2 of IS 2798 – Scale to measure a height of 0.5m/1.0m/1.2m
6.	Migration Test Cl. 4.6.4	– Electric oven/Water bath equipped with temperature controller to maintain desired temperature up to $\pm 1^{\circ}\text{C}$ accuracy – Electric hot plate with temperature control regulator – Weighing balance with a sensitivity of 0.1mg – Beaker – Evaporating Dish – Suitable scale /caliper to measure dimensions
7.	Water Potability test Cl. 4.6.5	Equipment to maintain temperature $38\pm 2^{\circ}\text{C}$
8.	Specific Migration test Cl. 4.6.4.2	– Electric oven/water bath equipped with thermostat – Electric hot plate with temperature control regulator – Analytical balance, Glass beakers – Stainless steel evaporating dish – Stainless steel tongs

ANNEX C

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. lot/batch etc.) 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.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: All the containers of the same type of material, same design/shape manufactured in a day shall constitute one control unit.

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 subcontracted 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) is also 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/empaneled 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. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on each container provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per clause 5 of the Indian Standard.

3.2 Additional Marking requirements: The material shall also be marked with the following additional requirement on each consumer pack of **Plastic Bottles/Containers for Packaging of Natural Mineral Water and Packaged Drinking Water**.

a) “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the 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
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method Cl. Ref.	Test Method IS		N o. of Sa mp le	Frequency	Remarks
4.1	Material	4.1	IS 15410	S	One	Every consignment	The sample may be got tested in an approved outside lab. In case the consignment is accompanied with a test certificate from manufacturer, no testing shall be required.
4.2	Design Shapes & Dimensions	4.2	IS 15410	R	Firm to have adequate in-process controls to ensure compliance to this parameter of the Indian Standard and appropriate records shall be maintained for evidence of conformity		
4.3	Manufacture, workmanship, finish & appearance	4.3	IS 15410	R	Firm to have adequate in-process controls to ensure compliance to this parameter of the Indian Standard and appropriate records shall be maintained for evidence of conformity		
4.4	Capacity	4.4	IS 2798	R	Firm to have adequate in-process controls to ensure compliance to this parameter of the Indian Standard and appropriate records shall be maintained for evidence of conformity		
4.5	Wall thickness	4.5	IS 2798	R	One	Each Control Unit	--
4.6.1.1	Transparency	Annex B	IS 15410	R	One	Each Control Unit	--
4.6.2	Leakage test	4.6.2	IS 2798	R	One	Each Control Unit	--
4.6.3	Drop test	4.6.3	IS 2798	R	One	Each Control Unit	--
4.6.4	Migration test	4.6.4	IS 9845	R	One	Each Control Unit	--
4.6.5	Water potability	Annex C	IS 15410	S	6	Every month	-
4.6.4.2	Specific Migration	4.6.4.2	IS 9845	S	One	Every month	