



PRODUCT MANUAL FOR DRINKING WATER COOLERS ACCORDING TO IS 1475: 2024

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.

1.	Product	:	IS 1475: 2024
	Title	:	Drinking Water Coolers
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	<u>Storage Tank</u> - Stainless Steel as per IS 5522 or IS 6911 Plastic- IS 10146 or IS 10910 or equivalent FDA grade material <u>Cables</u> - as per IS 9968 (Part 1) or IS 694, as applicable <u>3-pin plug</u> (if required)- as per IS 1293 <u>Motor</u> - IS 996, BLDC Motor- as per Cl. 5.19 <u>Compressor</u> - as per IS 10617
b)	Grouping guidelines	:	Please refer ANNEX –A
c)	Sample Size	:	2 nos of water cooler
3.	List of Test Equipment	:	Please refer ANNEX –B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX –C
5.	Possible tests in a day	:	Routine tests as per Cl. 14.2, Cooling capacity, Pull down and Maximum Operating Conditions (Cl. 6), Power Consumption test (Cl. 9), Storage Capacity (Cl. 11)
6.	Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 1475: 2024with the following scope:		
	Name of the product	Drinking Water Coolers	

Variety	Pressure Type and/or Storage Type, Variety of Storage type cooler (Storage and cooling water in the same container OR Employing separate containers for storage and cooling water), cooling capacity rating in l/h, water storage capacity in litres (as applicable), single/three phase, voltage rating in volts
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ANNEX A
Grouping Guidelines

1. IS 1475: 2024 covers Drinking Water Coolers of the following Types:
 - (a) Pressure type water coolers
 - (b) Storage type water coolers
 - Storage and cooling water in the same container
 - Employing separate containers for storage and cooling water

2. (a) Pressure type water cooler

Pressure type water coolers are grouped as given below based on cooling capacity:

Group	Cooling Capacity Rating
Group 1	Up to and including 30 l/h
Group 2	Above 30 l/h

Sample of Pressure type water cooler with highest cooling capacity rating from each group as above, shall be tested to cover Pressure type water coolers in that particular group for cooling capacity rating upto and including the cooling capacity rating tested.

(b) Storage type water cooler

Storage type water coolers are grouped as given below based on cooling capacity:

Group	Cooling Capacity Rating
Group 1	Up to and including 30 l/h
Group 2	Above 30 l/h

Sample of each variety of Storage type water cooler [as indicated at 1(b)] with highest cooling capacity rating and corresponding highest storage capacity for that cooling capacity (as per Table 1 of IS 1475), from each group as above, shall be tested to cover both the varieties of Storage type water coolers in that particular group for cooling capacity rating and storage capacity upto and including the capacities tested.

3. Single/Three phase water coolers shall be tested separately.
4. The Firm shall declare the varieties they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing capability and Testing facilities of the Manufacturer.
5. During the operation of the Licence, BO shall ensure that all the Varieties covered in the Licence are tested in rotation to the extent possible.

ANNEX B
List of Test Equipment

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

Sl. No.	Test Equipment	Tests used in with Clause Reference
1.	Test bench for Cooling capacity test and Annual Energy Performance test comprising of necessary measuring instruments like Voltmeter, Temperature indicator, Flow meter etc.	Cl 6.1 to 6.3 and Cl. 10
2.	Test bench for Maximum Operating Conditions test comprising of necessary measuring instruments like Voltmeter, Temperature indicator, Flow meter etc.	Cl 6.4
3.	Test bench for Pull Down test comprising of necessary measuring instruments like Voltmeter, Temperature indicator, Flow meter etc.	Cl 6.5
4.	Test bench for Maximum Power Consumption test comprising of necessary measuring instruments like Voltmeter, Temperature indicator, Flow meter etc.	Cl 9
5.	Measuring Jars/Cylinders for storage capacity test	Cl 11
6.	Measuring tape	To Measure dimension of tank
7.	Micrometer	To Measure thickness of sheet
8.	HV tester and IR tester	Cl 14
9.	Necessary set up for Electrical safety tests as per IS 302-1	
10.	Stop watch/ Timer	

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

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. 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 Water Coolers of same type, cooling capacity and storage capacity (as applicable) manufactured 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

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 1475:2024. The Standard Mark, as given in the Schedule of the licence, shall be marked on each Drinking Water Cooler 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 Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
5	Construction excluding Components and their material.	5	IS 1475	R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		
	Components and theirmaterial.	5	IS 1475	S	One	Each consignment	No further testing is required if accompanied with test certificate or ISI marked. Cables used shall be ISI Marked.
14.1	Type tests						
	Protection against Electric shock	14.1 .1 (a)	IS 1475	S	One	Once in a month for each type, cooling capacity and storage capacity (as applicable)	
		8	IS 302-1				
	High Voltage test	14.1 .1 (b)	IS 1475	S	One		
		13.3	IS 302-1				
	Leakage current test	14.1 .1 (c)	IS 1475	S	One		
		13.2	IS 302-1				
	Provisions for earthing	14.1 .1 (d)	IS 1475	S	One		
		27.5	IS 302-1				
	Cooling capacity rating	14.1 .1 (e)	IS 1475	S	One		
		6.3					

	Maximum Operating Condition	14.1 .1 (f) 6.4	IS 1475	S	One	Once in a month for each type, cooling capacity and storage capacity (as applicable)
	Power Consumption	14.1 .1 (g) 9	IS 1475	S	One	
	Energy Consumption	14.1 .1 (h) 10	IS 1475	S	One	
	Stoarge capacity	14.1 .1 (j) 11	IS 1475	S	One	
	Pull down	14.1 .1 (k) 6.5	IS 1475	S	One	
14.2	Routine tests					
	Functional test	14.2 (a) 13	IS 1475	R	Each water cooler	
	Earthing Continuity test	14.2 (b) A-1	IS 1475 IS 302-1	R	Each water cooler	
	High Voltage test	14.2 (c) A-2	IS 1475 IS 302-1	R	Each water cooler	