



उत्पाद मैनुअल

विद्युत् फूड-मिक्सर (लिक्विडाइज़र एवं ग्राइंडर) और अपकेंद्री जूसर - विशिष्टि (दूसरा पुनरीक्षण)
आई एस 4250 : 2025 के अनुसार

PRODUCT MANUAL

Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers - Specification
(Second Revision)
ACCORDING TO IS 4250 : 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 4250 : 2025
	शीर्षक Title	:	Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers - Specification (Second Revision)
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	-
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer ANNEX – A

c)	नमूने का परिमाण Sample Quantity	:	2 numbers
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer ANNEX – B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer ANNEX – C
5.	एक दिन में संभावित परीक्षण Possible tests in a day:	:	Please refer ANNEX-D
6.	लाइसेंस का दायरा /Scope of the Licence	:	
	Licence is granted to use Standard Mark as per IS 4250 : 2025 with the following scope:		
	Name of the Product	Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers	
	Functions	Liquidizer and/or Grinder and/or Centrifugal Juicer	
	Model No.		
	Class	Class of Appliance I/II/III	
	Rating	____W,____V,____Hz,____Phase	

ANNEX – A

समूहीकरण दिशानिर्देश Grouping Guidelines

- 1) Manufacturer shall declare the parameters defined in scope of licence for each model of the Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers produced by them.
- 2) For grant of licence/ change in scope of licence, each model of Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers to be tested.
- 3) However, following relaxation in testing is given:
 - a) Change in aesthetics, i.e colour, visual design etc may not be treated as different model.
- 4) The Firm shall declare the varieties of Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers 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) Further, the manufacturer shall submit the following:
 - a) Instruction Manual as per the requirements of Cl. 7.2;
 - b) Declaration of following parameters for each model:
 - i). Grade (Pollution degree: __, Material group: __);
 - ii). Rated capacities of each function (Liquidizer and/or Grinder and/or Centrifugal Juicer);
 - iii). Normal Load (in terms of recipe);
 - iv). Time rating: Continuous/ Short term (ON time)/ Intermittent (ON time, OFF time);
 - v). Insulation Class; and
 - vi). Suitability / unsuitability for certain functions.
- 6) During the operation of the Licence, BO shall ensure that all the models covered in the Licence are tested in rotation to the extent possible.

ANNEX – B

परीक्षण उपकरणों की सूची

List Of Test Equipment

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1.	Marking	Petroleum Spirit, cotton swab
2.	Cl. 8 (Protection against electric shock) (IS 302-2-14)	Voltmeter, Finger Test Apparatus
3.	Cl. 13.3 (High Voltage test) (IS 302-2-14)	High Voltage Tester, Voltmeter, mili Ammeter
4.	Cl. 10 (Power input and current), Cl. 13 (Leakage current & Electric strength at operating temperature), Cl. 16 (Leakage current & Electric strength), Cl. 27 (Provision for earthing) (IS 302-2-14)	Voltmeter, Ammeter, Wattmeter, Micro ammeter, Mega Ohm Meter, Frequency Meter, Test Finger, Mili Ammeter
5.	Cl. 30 (Resistance to Heat, Fire and Tracking) (IS 302-2-14)	Glow Wire Test Apparatus, Oven, Ball Pressure Apparatus, Heating Oven with Temperature Indicator, Timer
6.	Cl. 14 (Transient Overvoltage), Cl. 17 (Overload Protection of Transformers and associated circuits, Cl. 19 (Abnormal operation) (IS 302-2-14)	Endurance Test Apparatus (Voltmeter, Ammeter, Wattmeter, Energy Meter, Counter Meter, Timer)
7.	Cl. 11 (Temperature Rise) (IS 302-2-14)	Test Corner consisting of dull-black painted plywood, Temperature Controller
8.	Cl. 15 (Moisture Resistance) (IS 302-2-14)	Humidity Chamber (Temperature Indicator, Temperature Controller, Thermo hygrometer, Hour Meter), Test set up for degree of protection against moisture
9.	Cl. 21 (Mechanical Strength) (IS 302-2-14)	Impact tester, Spring Hammer, Finger Test Apparatus
10.	Cl. 22 (Construction) (IS 302-2-14)	Micrometer, VAW meter, Pressure Test Apparatus
11.	Cl. 23 (Internal wiring) (IS 302-2-14)	Flexing Test Apparatus
12.	Cl. 25 (Supply Connection and External Flexible Cables and Cords) (IS 302-2-14)	Cord Grip Test Apparatus, Measuring Tape, Micro-ohmmeter

13.	Cl. 26 (Terminals for external conductors) (IS 302-2-14)	Torque Screwdriver
14.	Cl. 27 (Provision for earthing) (IS 302-2-14)	Earth Contact Resistance Testing Panel (ECR Measurement), Voltmeter, Ammeter
15.	Cl. 28 (Screws and Connections) (IS 302-2-14)	Torque Wrench
16.	Cl. 29 (Creepage Distances and Clearances) (IS 302-2-14)	Filler Gauge, Vernier Calliper, Micrometer
17.	Cl. 20 Stability & Mechanical Hazards, (IS 302-2-14)	Inclination Plane with Test Panel
18.	Cl. 31 (Resistance to Rusting) (IS 302-2-14)	Humidity Chamber with Temp and Humidity Controller Measuring Cylinder 500 ml, Ammonium Chloride, Carbon Tetrachloride, Distilled Water
19.	Cl. 19.1 (Abnormal Operation) (IS 302-2-14)	Facility to lock the rotor
20.	Cl. 9 (Endurance test)	Endurance test panel, programmable on-off timer, artificial load
21.	Cl. 10 (Operational Tests)	Coffee Seeds, Urad Dal, Boiled Rice, Eggs, Stop watch Measuring jar, Sieves set 710,500, 355,1000,1400 microns, Weighing Balance
22.	Cl. 11(Temperature withstand test for bowl)	Hotplate
23.	Cl. 12 (Test for Controls)	Voltmeter, Ammeter, Arrangement to stall the motor
24.	Cl. 13 (Strength of Assembly)	Arrangement to apply force on the bowl assembly
25.	To maintain ambient temperature	Air conditioner

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

ANNEX – C

निरीक्षण और परीक्षण की स्कीम

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 Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers of each model number manufactured in a day shall constitute a control unit.** The manufacturer has the choice to define their own control unit/batch/lot and submit the same to the BIS.

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/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. MARKING – The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on each **Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers** and also on its packaging provided always that the **Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers** so marked conforms to the requirements of the specification. In addition, marking shall also be done as per Cl. 7 of **IS 4250 : 2025**.

4. Additional Marking Requirements:

- a) The material shall also be marked with the following additional requirement on packaging:
“For BIS certification details please visit www.bis.gov.in”;
- b) Instruction Booklet shall be provided as per the requirements of Cl. 7.2 of IS 4250 : 2025.

5. 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. of IS 4250	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
8	Components	24	IS 302-2-14	S	Each consignment of components received	Further testing is not required if supplied with BIS Standard Mark or with Test certificate, which ever applicable	
	Earth Continuity Test	A-1	IS 302-1	R	Each Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers		
	Electric Strength Test	A-2	IS 302-1	R			
	Functional Test	A-3	IS 302-1	R			
	Provision for Earthing	27	IS 302-2-14	R			
	Leakage current & electric strength at operating temperature	13	IS 302-2-14	R			
7	Marking	7	IS 4250	R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained		

8	Protection against access to live parts	8	IS 302-2-14	R	One	Each Control Unit
10	Operational Tests	10	IS 4250	R	One	Each Control Unit
11	Temperature withstand test for bowl	11	IS 4250	R	One	Each Control Unit
8	Power Input & Current	10	IS 302-2-14	S	One	Each model of Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers manufactured in the period of six months.
	Heating	11	IS 302-2-14	S	One	
	Leakage current & electric strength at operating temperature	13	IS 302-2-14	S	One	
	Transient Overvoltage	14	IS 302-2-14	S	One	
	Moisture Resistance	15	IS 302-2-14	S	One	
	Leakage Current & Electric Strength	16	IS 302-2-14	S	One	
	Overload Protection of Transformers and associated circuits	17	IS 302-2-14	S	One	
	Abnormal Operation	19	IS 302-2-14	S	One	
	Stability & Mechanical Hazards	20	IS 302-2-14	S	One	
	Mechanical Strength	21	IS 302-2-14	S	One	

8	Construction	22	IS 302-2-14	S	One	Each model of Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers manufactured in the period of six months.
	Internal Wiring	23	IS 302-2-14	S	One	
	Supply Connections & external flexiblecords	25	IS 302-2-14	S	One	
	Terminals for external conductors	26	IS 302-2-14	S	One	
	Screws & Connections	28	IS 302-2-14	S	One	
	Clearances, creepage distances & solid insulation	29	IS 302-2-14	S	One	
	Resistance to heat & fire	30	IS 302-2-14	S	One	
	Resistance to rusting	31	IS 302-2-14	S	One	
	Radiation, toxicity and similar hazards	32	IS 302-2-14	S	One	
9	Endurance for motor and base assembly	9	IS 4250	S	One	Each model of Electric Food-Mixers (Liquidizers and Grinders) and Centrifugal Juicers manufactured in the period of six months.
12	Test for controls	12	IS 4250	S	One	
13	Strength of assembly	13	IS 4250	S	One	

ANNEX – D

एक दिन में संभावित परीक्षण Possible Tests in a day

1. Marking (Cl. 7)
2. Protection against access to live parts (Cl. 8 of IS 302-2-14)
3. Power Input and Current (Cl. 10 of IS 302-2-14)
4. High Voltage (Cl. 13.2.2 of IS 302-2-14)
5. Leakage Current & Electric Strength at operating temperature (Cl. 13 of IS 302-2-14)
6. Provision for Earthing (Cl. 27 of IS 302-2-14)
7. Leakage Current & Electric Strength (Cl. 16 of IS 302-2-14)
8. Temperature withstand test for bowl (Cl. 11)
9. Test for controls (Cl. 12)