उत्पाद मैन्युअल
17153: 2025 के अनुसार
पी ऐन जी के साथ प्रयुक्त घरेलु गैस चूल्हे और निर्मित हाब्स

दस्तावेज़ संख्या – पी एम/आई एस 17153/3/ फरवरी 2026

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूलयांकन) विनियम, 2018 के तहत यह उत्पाद मैन्युअल प्रमाणीकरण के प्रचालन में रीति और पारिशिता 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 दस्तावेज़ का उपयोग किया जा सकता है

PRODUCT MANUAL FOR
DOMESTIC GAS STOVES AND BUILT IN HOB FOR USE WITH PNG ACCORDING to IS 17153:2025

Document No.- PM/IS 17153/3/February 2026

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 17153:2025
	Title	:	Domestic Gas stove and Built in Hob for use with PNG
	No. of Amendments	:	Nil
2.	**Sampling Guidelines:**		
a)	**Raw material**	:	Material and components – As per clause 5 of IS 17153:2025
b)	**Grouping guidelines**	:	Each type of Domestic Gas Stove or Built in Hob for use with PNG shall be tested for GOL/CSoL
c)	**Sample Size**	:	One Gas Stove/Built in Hob and spare components (Gas rail, nozzle, end plugs, gas cock, injector jets, installations, etc. as necessary for complete testing of the product)
3.	**List of Test Equipment**	:	Please refer ANNEX – A
4.	**Scheme of Inspection and Testing**	:	Please refer ANNEX – B
5.	**Possible tests in a day :**		
	All Tests		
6.	**Scope of the Licence**	**:**	**Please refer ANNEX- C**

ANNEX A

List of Test Equipment

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Ageing test for plastic materials, Cl. 5.1.1, Annex B of IS 5116	Heating cabinet
2.	Flash back test for material of Burner, Cl. 5.2, Annex C of IS 5116	Test set up as per Annex C of IS 5116
3.	Mercurous Nitrate Test, Cl. 5.3	a) Mercurous Nitrate, Di-hydrate b) Distilled Water c) Conc. Nitric Acid d) Weighing Balance e) Measuring cylinder f) Magnifying glass
4.	Immersion test for non-metallic materials, Cl. 5.4	a) Pentane or PNG b) Weighing Balance
5.	Melting point of body of burner, Cl. 5.5	Thermometer, Arrangement for heating
6.	Thermal Shock test, Cl. 5.8.3	Oven, Thermometer, Test Set up as per Annex D of IS 6506
7.	Dimensions, Cl. 6	Scale, Micrometer
8.	Finish for vitreous enamelled components, Cl. 8.2, Annex E of IS 5116	a) Dropper bottle or medicine dropper b) Watch glass c) Citric acid solution d) Cleaner solution e) Acetone f) one percent solution of trisodium phosphate g) Test set up as per Annex E-1.2 of IS 5116
9.	Coating thickness test of electroplated body, Cl. 8.3.1	BNF Jet test apparatus or equipment as per any other method such as mentioned in IS 3203
10.	Adhesion test of electroplated body, Cl. 8.3.2	File and vice
11.	Resistance to abrasion for paints or similar finishes for gas stove body, Cl. 8.4 (a)	Apparatus as per Fig. 1 of IS 17153

12.	Resistance to Heating for paints or similar finishes for gas stove body, Cl. 8.4 (b)	Pan, Oven with thermometer (Alternate arrangement)
13.	Dimensions of injector jet, Cl. 10.1	Vernier caliper, Thread gauge
14.	Melting point of injector jet, Cl. 10.1.1	Burner and thermometer
15.	Wall thickness of main gas rail, Cl. 14.4	Micrometer or any suitable thickness gauge
16.	Gas Soundness – Clause 13, Annex J of IS 5116	a) Leak Test apparatus with Bubble Indicator b) Pressure Gauge c) Water Tank
17.	Screwed inlet and outlet connections, Cl. 14.3	Thread gauges as per IS 554
18.	Strength and Rigidity – Clause 15	a) Dial gauge with magnetic stand b) Surface plate and Iron weight c) Steel Legs, Steel Strips d) Frame, Fridge
19.	Gas Consumption – Clause 17	a) Stop watch, Thermometer b) Gas Flow meter, Manometer c) Air testing apparatus with empty compressor tank d) Pressure regulator, Barometer, Scale e) Calibration Bottle
20.	Resistance to Draught – Clause 23	a) Rotating Vane Anemometer b) Mini Fan
21.	Combustion Test – Clause 24	a) Digital CO (Carbon Mono-oxide) Indicator b) Gas Collecting hood c) Aluminium Vessel d) Orsett Apparatus e) Pipette f) Chemicals, Measuring cylinders and Chemical balance, wash bottle
22.	Fire Hazard and Limiting Temperature – Clause 25	a) Thermocouple, Stainless Steel tube b) Temperature Indicator
23.	Thermal Efficiency – Clause 26	a) Weighing Balance & Weight Box b) Thermometer c) Aluminium Pan and Stirrer d) CNG cylinder e) Pressure regulator, Manometer

24.	To maintain temperature for testing	a) Air Conditioner

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

ANNEX B
Scheme of Inspection and Testing

1. QUALITY ASSURANCE PLAN

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

1.2 The manufacturers shall define a Quality Assurance Plan (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the differenttests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 **RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT**:

1.3.1 For the guidance of manufacturers, the recommended definition of Control Unit is the quantity of Gas Stove/Built in Hob having same design and material of burners, total gas consumption in m3/h and rating of individual burner in kcal/h, manufactured in a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommendedlevels of control are given in **Table 1**. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

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.

2. ENSURING COMPLIANCE THROUGH TESTING- Manufacturers shall ensure compliance of their products to all the requirementsof the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

i) Shared testing resources like common facility,

ii) Cluster based testing facility,

iii) Sub-contracting to outside laboratories which may either be:

a) BIS recognised/empanelled laboratories, or

b) Any accredited laboratory as per ISO/IEC 17025

2.1 **TEST RECORDS**- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories

or test facilities, shall be made available for inspection by BIS.

2.2 **TEST CERTIFICATE**- Every sling or batch of slings shall be provided with a test certificate issued by the manufacturer as per Cl. 11 of IS 2762: 2009. A template of test certificate is given in ***Appendix- 1***.

3. PACKING, LABELLING AND MARKING – Packing, Labelling and Marking shall be done as per IS 17153: 2025. The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on Gas stove/Hob, provided always that the material so marked conforms to each requirement of the specification.

3.1 **Additional Marking requirements**: Additionally, the following shall also be marked on tag or package :

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

4. REJECTION - 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

(1)				(2)		
Test Details				**Levels of Control**		
Cl.	**Requirement**	**Test Method**		**No. of Sample**	**Frequency**	**Remarks**
		Clause	**Reference**			
4	General	4.1,4.2, 4.3	IS 17153	Each Stove/ Built in Hob	--	--
5	MATERIALS					
	Plastic Component	5.1.1, Annex-B	IS 17153 IS 5116	One	Each consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked. Raw materials which are under mandatory BIS Certification, shall be ISI Marked. In case of failure, consignment shall not be used in manufacturing
	Mercurous nitrate test for Copper and Copper Alloy	5.3, IS 2305	IS 17153			
	Immersion test for Non Metallic materials	5.4 Annex-D	IS 17153 IS 5116			
	Main body of burner	5.5	IS 17153			
	Drip Tray	5.7	IS 17153			
	Surface of Glass or Glass Ceramic	5.8.2 (a), (b) & (c)	IS 17153 IS 2553-1 IS 14900			
	Surface of Glass or Glass Ceramic	5.8.2 (d),	IS 17153	One	Each consignment	No further testing is required, if accompanied with the Test Certificate
	Surface of Glass or Glass Ceramic	5.8.2 (e)	IS 17153	One	Each Control Unit	
	Additional requirements for Surface of Glass or Glass Ceramic	5.8.3 (a), (b), (c), (d) & (f)	IS 17153	One	Each Control Unit	

	Thermal Shock test for Surface of Glass or Glass Ceramic	5.8.3 (e) Annex D	IS 17153 IS 6506	One	Each consignment	No further testing is required, if accompanied with the Test Certificate.
6	Design for maintenance	6	IS 17153	Each Stove/Hob	--	--
7	Rigidity and Stability	7	IS 17153	Each Stove/Hob	--	--
8	Workmanship and Finish	8.1	IS 17153	Each Stove/Hob	--	--
8	Vitreous Enamelled components	8.2 Annex-E	IS 17153 IS 5116	Each Stove/Hob	Each Consignment	No further testing is required if accompanied with test certificate. In case of failure consignment shall not be used in manufacturing
	Electroplated material	8.3.1 8.3.2	IS 17153 IS 17153 IS 3203	Two Pieces		
	Paints or similar finish for gas stove body	8.4	IS 17153	One	Every month	---
	Concealed Gas supplies	8.5	IS 17153	One	Each Consignment	No further testing is required if accompanied with test certificate. In case of failure consignment shall not be used in manufacturing
	Screws, Nuts, Bolts, Springs, Pipes and Pins	8.6	IS 17153	One	Each Consignment	No further testing is required if accompanied with test certificate. In case of failure consignment shall not be used in manufacturing
	External Finish	8.7	IS 17153	Each Stove/Hob	--	--

9	Gas Taps	9.1 to 9.6 9.8 to 9.12 Fig 2, 3	IS 17153	Each Stove/Hob	--	--
		9.7, Fig 4	IS 17153	Two	Each Consignment	No further testing is required if accompanied with test certificate. In case of failure consignment shall not be used in manufacturing
10	Injector Jets (Material of construction & threads to be declared	10.1 to 10.2	IS 17153	10%	Each Consignment	No further testing is required if accompanied with test certificate. In case of failure consignment shall not be used in manufacturing
11	Burners	11.1 to 11.7	IS 17153	Each Burner	--	--
12	Pan Support	12.1, 12.1.1, 12.1.2	IS 17153	Each Pan support	--	--
13	Gas Soundness	13 Annex-J	IS 17153 IS 5116	Each Stove/Hob	--	If there is any defect in any stove, it shall be rectified. The rectified stove shall again be tested and marked only if found conforming. In addition a stove shall be drawn from each control unit and tested for Gas soundness after the stove has been operated for two hours.
14	Gas Inlet Connections	14.2	IS 17153	Each Stove/Hob	Once in a month	In case of failure, twice the number of samples shall be tested and if any stove fails the control unit shall be rejected.
		14.3 ,14.4	IS 17153	10%	Each Consignment	No further testing is required, if accompanied with test certificate. In case of failure consignment shall not be used in manufacturing.
		14.5	IS 17153	Each Stove/Hob	--	--

15	Strength & Rigidity	Annex-A	IS 17153	One Stove/Hob	Each control Unit	In case of failure twice the number of sample shall be tested if any stove sample fails the control unit shall be rejected.
17	Gas Consumption	17, Annex-B	IS 17153	Three stoves/Hobs	Each Control Unit	In case of failure, six more stoves shall be tested from the same control unit and if any stove fails all the stoves in the control unit shall be checked and those stoves which shall be conforming shall be marked. However those stoves which are failing may be reprocessed and retested and marked only if found conforming.
18	Ignition and Flame travel	18.1 to 18.4 14, Annex-G	IS 17153 IS 5116	Each Stove/Hob	--	If there is any defect in any stove, it shall be rectified. The rectified stove shall again be tested and marked only if found conforming.
19	Flame Stability	19.1 to 19.3	IS 17153	One Stove/Hob	Each Control Unit	
20	Noise Control	20	IS 17153	Each Stove/Hob		
21	Flash Back	21	IS 17153	One Stove/Hob	Each Control Unit	In case of failure, all gas stove shall be tested and only those stoves which are conforming shall be marked.
22	Formation of soot	22	IS 17153	One Stove/hob	Each Control Unit	In case of failure, all gas stove shall be tested and only those stoves which are conforming shall be marked.
5	Flash back test for material of the burner	5.2, Annex-C	IS 5116	One burner and its parts	Once in a month	The test shall be conducted if there is any change in material of burner and its parts or source of supply.
23	Resistance to Draught	23	IS 17153	One Stove/ Built in Hob	Once in a month for each type of Gas stove, Hob	--

					produced in the month	
24	Combustion	24, Annex-C	IS 17153	One Stove/ Built in Hob	Once in a month for each type of Gas stove, Hob produced in the month	--
25	Fire hazard and limiting temperature	23, Annex-M	IS 5116	One Stove/ Built in Hob	Once in a month	Stoves/Hobs having different body material and finish shall be tested separately, if such stoves fails within every 30^{th} control unit.
		Annex-E	IS 17153	One Stove/ Built in Hob		
26	Thermal Efficiency	Annex-D	IS 17153	One Stove/ Built in Hob	Once in a month	In case of failure, samples from three consecutive control units shall be tested and original frequency may be restored if all sample pass.

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Annex-C

SCOPE OF THE LICENCE

Licence is granted to use Standard Mark as per IS 17153:2025 with the following scope	
Name of Product	Domestic Gas Stove and Built in Hob for use with PNG
Product covered	a) Domestic Gas Stove b) Built in hob
TYPE	a) Total Gas Consumption in m3/h
	b) No. of burners and rating of burners in Kcal/h
	c) Material of body and burner
	d) Thread size of injector Jet
	e) Toughened glass top, if applicable
	f) Auto Ignition, if applicable