

केंद्रीय मुहर विभाग - III

हमारा संदर्भ- केन्द्रीय मुहर विभाग-3/16: IS 4246

03 08 2018

विषय: IS 4246 के अनुपालन हेतु एस आई टी

सभी शाखा कार्यालय से आग्रह है कि एस आई टी Doc: SIT/4246/1, August 2018 का अनुपालन तत्काल प्रभाव से सुनिश्चित करें।

(अमित कुमार)
वैज्ञानिक 'सी' (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय/शाखा कार्यालय

आई टी एस विभाग — बीआईएस इंटरनेट पर अपलोड करने हेतू

CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-3/16: IS 4246

03 08 2018

Subject: SIT for IS 4246:2002 – Domestic Gas Stove for use with Liquefied Petroleum Gas.

BOs are requested to implement the SIT Doc: SIT/4246/1, August 2018 with immediate effect.

Amit Kumar
Sc. C (CMD III)

Head (CMD III)

Circulated to: All ROs/BOs

Copy to: ITS for hosting on Intranet

SCHEME OF INSPECTION AND TESTING

**FOR CERTIFICATION OF
DOMESTIC GAS STOVES FOR USE WITH LIQUIFIED PETROLEUM GASES
ACCORDING TO IS 4246: 2002**

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING – As per the requirements of IS 4246: 2002.

4. CONTROL UNIT –Gas Stoves having same design and material of burners, total gas consumption in g/h and rating of individual burners in kcal/h, manufactured in a day shall constitute a control unit.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of [Table 1](#) and the levels of control in column 3 of [Table 1](#), shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standard and covered by the licence should be marked with Standard Mark.

6. REJECTIONS – 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		Levels of Control			
Cl.	Requirement	Test Method		R:required (or) S: Subcontracting permitted	No. of Sample	Frequency	Remarks
		Clause	Reference				
4.	General	4	IS 5116	R	Each Gas Stove		
		4.1.1	IS 4246				
5	MATERIALS						
	Main body of Burner	5.2,5.5 Annex C	IS 5116	S	Each Consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked. In case of failure, consignment shall not be used in manufacturing.	
	Plastic Component	5.1.1, Annex B	IS 5116	S			
	Copper and Copper Alloy	5.3, IS 2305	IS 5116	S			
	Non Metallic materials in contact with LPG	5.4, Annex D	IS 5116	S			
	Gas tap	5.6	IS 5116	S			
	Drip tray	5.7	IS 5116	S			
6	Design for Maintenance	6	IS 4246	R	Each Gas Stove		

7	Rigidity and Stability	7	IS 4246	R	Each Gas Stove		
8	Workmanship and Finish	7.1	IS 5116	R	Each Gas Stove		
	Vitreous-enamelled Components	7.2, Annex E	IS 5116	R	Two pieces	Each Consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked. In case of failure, consignment shall not be used in manufacturing
	for Nickel Chrome plated material	7.3.	IS 5116 IS 3203 IS 6009	R			
	Painted surface	7.4	IS 5116	R	One	Every month	
	Screws, Nuts, Bolts, Springs , Pipes and Pins	7.7 8.3	IS 5116 IS 4246	R		Each Consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked. In case of failure, consignment shall not be used in manufacturing
	External finish	8.2	IS 4246	R	Each Gas Stove		
9	Gas Taps	8	IS 5116	R			
		8.1 to 8.6, 8.8 to 8.12 and Fig 2 &3	IS 5116	R	Each Gas Stove		
		8.7 and Fig 4	IS 5116	R		Each Consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked. In case of failure, consignment shall not be used in manufacturing

10	Injector Jets (Material of Construction and Thread to be declared)	9	IS 5116	R		Each Consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked. In case of failure, consignment shall not be used in manufacturing
11	Burners	10	IS 5116	R	Each Burner		
		11.2, 11.3	IS 4246	R	Each Gas Stove		
12	Pan Supports	12	IS 4246	R	Each Pan Support		
13	Gas Soundness	16, Annex J	IS 5116	R	Each Gas Stove		If there is any defect in any stove this may be rectified. Rectified stove shall again be tested & marked only if found conforming to the requirement. In addition, a gas stove shall be drawn from each control unit and tested for Gas Soundness after the gas stove has operated for two hours.
14	Gas inlet connection	18.2	IS 5116	R	One Gas Stove	Every 30 th Control Unit	If one stove fails, twice the number of samples shall be drawn. If any further sample fails, control unit shall be rejected.
		18.3,18.4	IS 5116	R		Each Consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked. In case of failure, consignment shall not be used in manufacturing

		14.2	IS 4246	R	Each Stove	Gas	-	-
15	Strength and Rigidity	15, Annex C	IS 4246	R	One Stove	Gas	Each Control Unit	In case of failure, all gas stoves in the control unit shall be tested and those found not conforming, shall be rejected.
15.1	Verification of the strength of the Gas Stove Surface of Toughened Glass Top against Thermal Stress	15.1 , 5.1.2	IS 4246	R	One Stove	Gas	Each Control Unit	In case of failure, ten more gas stoves shall be tested from the same control unit and if any stove is found failing the control unit shall be rejected
15.2	Fragmentation Test of the Toughened Glass Top	15.2 5.1.3	IS 4246	R	One Stove	Gas	Each Control Unit	In case of failure, three more gas stoves shall be tested from the same control unit and if any stove is found failing the control unit shall be rejected
18	Ignition & Flame Travel	18 14, Annex G	IS 4246 IS 5116	R	Each Stove	Gas		If there is any defect in any of the gas stove, the same may be rectified, and again tested and marked only if found conforming
19	Flame Stability	19	IS 4246	R	Each Stove	Gas		
20	Noise Control	20	IS 4246	R	Each Stove	Gas		
21	Flash Back	21	IS 4246	R	One Stove	Gas	Each Control Unit	
								In case of failure, all gas stoves in the control unit shall be tested and only

22	Formation of Soot	22	IS 4246	R	One Gas Stove	Each Control Unit	those stoves which are found conforming shall be marked.
TYPE TESTS							
5	Flash Back Test for Material of the Burner	5.2, Annex C	IS 5116		One burner and its part	Each 15 th Control Unit	This test shall also be conducted, if there is any change in material or source of supply of Burner and its parts.
17	Gas Consumption	17, Annex D	IS 4246	R	Three Gas Stove	Each Control Unit	In case of failure, six more stoves shall be drawn and tested from the same control unit. In case of any further failure, all the pieces in the control unit shall be checked and those found conforming to requirements shall be marked. However, those pieces which are failing may be reprocessed and retested and marked only if found conforming.
23	Resistance to Draught	23	IS 4246	R	One Gas Stove	Every 30 th Control Unit	
24	Combustion	24, Annex E		R	One Gas Stove		
25	Fire Hazard and Limiting Temperature	23, Annex M	IS 5116		One Gas Stove	Every 30 th Control Unit	Stoves having different body material and finish shall be tested separately, if production of such stove falls within every 30 th control unit.
		25.2, Annex F	IS 4246		One Gas Stove		

26	Thermal Efficiency	26, Annex F	IS 4246	R	One Gas Stove	Every 7 th Control Unit	In case of failure, samples from consecutive control units shall be tested and if found satisfactory, original frequency may be restored.
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NOTE-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

NOTE-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.