



**उत्पाद मैनुअल
आई एस 4109: 2023 के अनुसार
कड़ाही के लिए**

दस्तावेज संख्या - पी एम/आई एस 4109/2/जुलाई 2023

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिश्रिता 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 दस्तावेज का उपयोग किया जा सकता है।

**PRODUCT MANUAL FOR
KADAHI
ACCORDING to IS 4109:2023**

Document No.- PM/IS 4109/2/July 2023

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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PRODUCT MANUAL FOR KADAHIES ACCORDING TO IS 4109:2023

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1.	Product	:	IS 4109:2023
	Title	:	Kadahi
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	Kadahi body: ✓ Hot rolled Carbon Steel sheet- Grades ISH270D or ISH270E of IS 1079 ✓ Grey cast Iron- IS 210 Handle- IS 2062 Rivet- IS 1148 <i>(Material as per IS 1079, IS 1148 and IS 2062 are under compulsory BIS Certification and it shall be ensured that only ISI Marked material is used in manufacturing the product)</i>
b)	Grouping guidelines	:	Please refer ANNEX – <u>A</u>
c)	Sample Size	:	One Kadahi
3.	List of Test Equipment	:	Please refer ANNEX – <u>B</u>
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – <u>C</u>
5.	Possible tests in a day	:	All tests
6.	Scope of the Licence:	:	Please refer ANNEX – <u>D</u>

ANNEX-A**Grouping Guidelines**

1. IS 4109: 2023 covers Kadahies which are classified into different varieties based on the following:

a) *Material of kadahi body*

- Hot Rolled Carbon Steel Sheet
- Grey Cast Iron

b) *Shape*

- Round type
- Bowl shape
- Any other shape, as agreed between manufacturer and purchaser

c) *Size- Nominal dia at top (in mm)*

- Round shape Cast Iron – 224, 262, 280, 295, 316, 333, 356, 410, 435, 464, 575, 625, 686, 724
- Bowl shape Cast Iron- 228, 264, 284, 298, 320, 336, 358, 384, 410, 435, 460
- Round and Bowl shape Mild Steel- 225, 300, 350, 400, 450, 500, 550, 600, 760

2. Considering the above, the grouping guidelines given below shall be followed for GoL/CSoL:

- Sample of Kadahi of lowest and highest size from the sizes offered shall be tested to cover Kadahies of all sizes for that particular shape and material.
- Separate sample as above, shall be tested for each shape and material to cover all shapes and materials.

In addition to the samples tested for independent testing as above, factory test reports of all sizes intended to be covered, shall be submitted.

3. The Firm shall declare the varieties of Kadahies intended to be covered in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

4. During the operation of license, it shall be ensured that all varieties covered in the license are tested in rotation, to the extent possible.

ANNEX--B**List of Test Equipment***Major test equipment required to test as per the Indian Standard*

Sr No	Tests used in with clause reference	Test equipment
1.	Dimensions, Cl. 3, Table 1 to Table 3	Steel scale/Vernier caliper/Height gauge, Micrometer
2.	Pull test, Cl. 6.1, Table 1 to Table 3	Set up for pull test (suitable table) Dead loads
3.	Leakage test, Cl. 6.2	Heat source, e.g. LPG Stove

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

ANNEX C

Scheme of Inspection and Testing

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 requirements of IS 4109: 2023. The Standard Mark, as given in the Schedule of the licence, shall be marked on each Kadahi provided always that the Kadahi 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 as follows: “For details of BIS certification please visit www.bis.gov.in”

4. CONTROL UNIT – KDAHIES of same shape and size manufactured from same consignment of raw material under similar conditions of production 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 Standards 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 R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
3	Material	3, Table 1	IS 4109 IS 210 IS 1079 IS 1148 IS 2062	S	One	Each consignment	Materials as per IS 1079, IS 1148 and IS 2062 are covered under compulsory BIS certification. It shall be ensured that these materials are ISI marked and received along with manufacturers test certificate. For other materials, no further testing is required if received with test certificate or is ISI Marked.
4	Shapes and Dimensions	4.1, 4.2 Table 2 to Table 4	IS 4109	R	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained.		
5	Manufacture and workmanship	5.1, 5.2	IS 4109	R			
6.1	Pull test	6.1	IS 4109	R	One	Each control unit	---
6.2	Leakage test	6.2	IS 4109	R	One	Each control unit	---

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.

ANNEX D**Scope of Licence**

“Licence is granted to use Standard Mark as per IS 4109:2023 with the following scope:

Name of the product	Kadahies
Material	Hot Rolled Carbon Steel/Grey Cast Iron
Shape	
Size (Nominal diameter (at top)), in mm	