



उत्पाद मैनुअल
आई एस 16015: 2022 के अनुसार
मोर्टिस तालें और लैचेस (मेकैनिकली संचालित) के लिए

दस्तावेज संख्या - पी एम/आई एस 16015/3/मार्च 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

**MORTICE LOCKS AND LATCHES
(MECHANICALLY OPERATED)
ACCORDING to IS 16015:2022**

Document No.- PM/IS /16015/3/March 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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New Delhi – 110002



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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 16015:2022
	Title	:	Mortice Locks And Latches (Mechanically Operated)
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	As per Cl. 4 of IS 16015: 2022 Materials for various components used in manufacturing of Locks and Latches shall be declared and evidence of conformity in form of test certificates <i>Materials as per IS 4454-4, IS 6911, IS 1079 are under mandatory BIS Certification and manufacturer shall ensure that they are received only ISI Marked and with test certificate.</i>
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	5 nos
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	:	Key identification requirement (cl. 9.2), Non-intercgnageability of packing of locks (cl. 9.2.5), Tests for Dead Bolt (Cl. 9.3.1), tests for Latch Bolt (Cl. 9.3.2), tests for Locking Plate (Cl. 9.3.3), Tests for strength of Key (Cl. 9.3.4)
6.	Scope of the Licence	:	Please refer ANNEX – D

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ANNEX - A

Grouping Guidelines

1. The following parameters have been taken into consideration for developing the grouping guidelines for certification of Mortice Locks and Latches (Mechanically operated) as per IS 16015:2022:
 - Product:
 - i) Mortice Lock
 - ii) Mortice Latches- Vertical type
 - iii) Rebated Mortice locks- Vertical type
 - Types of locks based on locking mechanism:
 - i) Mortice lock with latch Bolt
 - ii) Mortice lock with dead bolt
 - iii) Mortice lock with dead bolt and latch bolt
 - iv) Mortice lock with hook bolt
 - v) Mortice lock with latch bolt and hook bolt
 - vi) Mortice lock with dead bolt and hook bolt
 - vii) Mortise Lock with Dead Bolt and Latch Bolt for Keyless application
 - viii) Mortise Lock with Latch Bolt and Dead Bolt for Rebated (Double) Doors
 - Categorization based on usage:-
 - i) Grade 1 (Low security)
 - ii) Grade 2 (Medium security)
 - iii) Grade 3 (High security)
 - Size of locks: 65, 75, 100, 125, 150 mm (any other size may also be covered as per agreement between purchaser and manufacturer)
2. For considering GOL/CSoL, product of each type shall be tested. Further, Samples of Mortice Lock of each grade, with highest size from the range of sizes intended to be covered, shall be tested to cover the entire varieties of products. However, following relaxation may be given while testing of locks of different locking mechanism:
 - a) If “Mortice lock with dead bolt and latch bolt” is tested, then “Mortice lock with dead bolt” and “Mortice lock with latch bolt” may also be covered without separate testing provided that the Grade of locks remain same.
 - b) If “Mortice lock with latch bolt and hook bolt” is tested, then “Mortice lock with latch bolt” and “Mortice lock with hook bolt” may also be covered without separate testing provided that the Grade of locks remain same.
 - c) If “Mortice lock with dead bolt and hook bolt” is tested, then “Mortice lock with dead bolt” and “Mortice lock with hook bolt” may also be covered without separate testing provided that the Grade of locks remain same.

In addition to the samples of different sizes and locking mechanisms drawn for independent testing as per above guidelines, factory test report of all other sizes and locking mechanisms intended to be covered in scope shall also be submitted.

3. The Firm shall declare the various types of products intended to be covered in the Licence along with the materials for each component for each variety. The Scope of the Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
4. During the operation of the licence, BOs shall ensure that all the varieties covered in the licence 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*

Sl. No.	Tests used in with Clause Reference	Test Equipment
a.	Tests for dead bold of Mortice lock, Cl. 9.3.1	a. Torque wrench b. Force gauges c. Load test set up for dead bolt
b.	Tests for Latch bolt of Morctice locks, Cl. 9.3.2	a. Vernier Caliper b. Torque Wrench
c.	Tests for Locking plate, Cl. 9.3.3	d. Torque wrench
d.	Test for strength of key, Cl. 9.3.4	e. Force gauges
e.	Endurance test as per Cl. 9.4	a. Testing arrangement with cycle counters as per Cl. 9.4 b. Hydraulic Test Bench
f.	Corrosion resistance test as per Cl. 9.5	a. Salt spray test arrangement b. Timer

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 equipments.

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 16015: 2022.

The BIS Standard Mark, as given in the Schedule of the licence, shall be marked on each product 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 as follows: “For details of BIS certification please visit www.bis.gov.in”.

4. CONTROL UNIT – All products of same type, Grade and size 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.

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	Recommended Levels of Control		
Clause	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
4	Material	4	IS 16015 IS 210 IS 737 IS 1079 IS 4454-1 IS 6911 IS 617 IS 319 IS 292 IS 14329 IS 1573	S	One	Each Consignment	Materials for various components used in manufacturing of Locks and Latches shall be declared and evidence of conformity in form of test certificates. <i>Materials as per IS 4454-4, IS 6911, IS 1079 are under mandatory BIS Certification and manufacturer shall ensure that they are received only ISI Marked and with test certificate. For other materials, no further testing is required in case material is ISI Marked or received with test certificate</i>
9	Performance tests						
9.1	General	9.1.1	IS 16015	R	Firm should exercise adequate control so that whole production should meet the requirements. Appropriate records should be maintained.		
9.2	Key identification requirements	9.2.1, 9.2.2, 9.2.3,	IS 16015	R			

		9.2.4, 9.2.5					
	Torque to operate deadbolt with key	9.3.1.1	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
	Resistance to side load on deadbolt	9.3.1.2	IS 16015	R	As per Cl. 9.3.3		
	Resistance to end load on deadbolt	9.3.1.3	IS 16015	R			
	Resistance to pulling of hook/claw bolt	9.3.1.4	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
	Resistance to disengaging of hook/claw bolt	9.3.1.5	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
	Resistance to forcing of locating device in sliding door locks	9.3.1.6	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.3.2	Tests for latch bolt						
9.3.2.1	Test for latch action	9.3.2.1	IS 16015	R	Firm should exercise adequate control so that whole production should meet the requirements. Appropriate records should be maintained.		
9.3.2.2	Return force of latch bolt	9.3.2.2	IS 16015	R			
9.3.2.3	Torque to withdraw the latch bolt with key	9.3.2.3	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.3.2.4	Torque to withdraw the latch bolt with handle	9.3.2.4	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.3.2.5	Strength of normal latch action and stops	9.3.2.5	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is

							tested once in a month
9.3.2.6	Resistance to side load on latchbolt	9.3.2.6	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.3.3	<i>Tests for locking plate of Mortise Lock</i>						
9.3.3.1	Resistance to side load on locking plate	9.3.3.1	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.3.3.2	Resistance to pulling on locking plate	9.3.3.2	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.3.3.3	Resistance to lifting force on locking plate	9.3.3.3	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.3.4	test for strength of key	9.5	IS 16015	R	One	Once in a month	Testing shall be done to ensure that product of each type, grade and size produced in a month is tested once in a month
9.4	Endurance Test	9.4.1, 9.4.2, 9.4.3	IS 16015	R	One	Once in a year for each type and grade	
9.5	Corrosion Resistance	9.5	IS 16015	R	One	Once in six months for each grade	

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 the Licence**

Licence is granted to use Standard Mark as per IS 16015:2013 with the following scope:	
Name of the Product	i) Mortice Lock ii) Mortice Latches- Vertical type iii) Rebated Mortice locks- Vertical type
Types of locks based on locking mechanism	
Grade	Grade 1/ Grade 2/ Grade 3
Sizes	Frommm to ...mm