



**उत्पाद मैनुअल
आई एस 9131:2021 के अनुसार रिम ताले और लैचेस (मेकनिकली संचालित)
के लिए**

दस्तावेज संख्या – पीएम/आईएस 9131/1/अप्रैल 2025

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
RIM LOCKS AND LATCHES (MECHANICALLY OPERATED)
ACCORDING to IS 9131:2021**

Document No.-PM/IS 9131/1/ April 2025

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.

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, ९, बहादुर शाह ज़फ़र मार्ग
Manak Bhawan, 9, Bahadur Shah Zafar Marg
नई ददल्ली- ११०००२
New Delhi – 110002



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1.	Product	:	IS 9131: 2021
	Title	:	Rim Locks And Latches (Mechanically Operated)
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	-
b)	Grouping guidelines	:	Please refer ANNEX –A
c)	Sample Size	:	10 Nos.
d)	Declaration for testing of samples	:	a) Type (1/2/3/4) b) Grade (1/2/3) c) Size d) Shape and design (Locks and Latches opened with the key from both side/ Locks and Latches opened with one side key and other side knob) e) Type of Key Operation and Locking (Dead Locking/ Manual Locking) Note: In addition to the above parameters, any other parameter as deemed necessary for testing as per the Standard, shall also be declared in the test request of sample
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	:	All tests except : Durability (Cl. 10.5), Corrosion resistance and Operation at extremes of temperature (Cl. 10.7)
6.	Scope of the Licence:	:	Please refer ANNEX –D

ANNEX A

Grouping Guidelines

1. Rim Locks and Latches covered under IS 9131: 2021 may be classified into different varieties based on following parameters:
 - a) **Type:** 1/2/3/4
 - b) **Grade:** 1/2/3
 - c) **Sizes:** 100 mm X 75 mm; 125 mm X 82 mm; 149 mm X 104 mm
The locks and latches of sizes other than those specified in Cl. 6.1 may be supplied by mutual agreement between the purchaser and the supplier as per Cl. 6.1.1 of IS 9131
 - d) **Shape and design:** Locks and Latches opened with the key from both side/ Locks and Latches opened with one side key and other side knob
 - e) **Type of Key Operation and Locking:** Dead Locking/ Manual Locking
2. Considering the above, the following grouping guidelines for Grant of Licence/Change in Scope of Licence shall be followed:
 - a) Rim Locks and Latches of each type, each grade, each design and each type of key operation, as above, shall be tested separately.
 - b) Rim locks and Latches of any size may be tested to cover all sizes intended to be covered.
3. Manufacturer shall declare varieties of the locks and latches along with the technical parameters as per Para 1 above, which are intended to be covered under the scope of licence. Scope of licence may be restricted based on manufacturing and testing capabilities.
4. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation, to the extent possible.

Annex B**List of Test Equipment*****Indicative list of major test equipment required to test as per the Indian Standard***

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1	Return Force of Latch Bolt. Cl 10.1	Suitable Force guage, vernier calipers
2	Resistance to side load on latch bolt, Cl 10.2	Fixture for mounting the lock or latch, Suitable force guage for applying the force, vernier calipers
3	Torque to operate Dead bolt, Cl 10.3	Fixture for mounting the lock or latch, Torque tester
4	Torque resistance of Rim Lock with Lockable Handle/Knob, Cl 10.4	Fixture for mounting the lock or latch to a handle/knob, Torque wrench
5	Durability of latch action, Cl.10.5	Test set up for Durability test (Test door of 100kg door mass and frame with a gap of 3mm+-1mm) with provision of automatic door closing and opening equipped with suitable force guage, provision to rotate key/knob with torque measurement along with automatic cycle counter with timer. <i>The equipment shall be capable of operating number of 10 cycles per minute maximum</i>
6	Durability of Dead Bolt Mechanism, Cl. 10.5.2	Test set up for Durability test with provision of key rotation, inserting and with drawing the key from the lock along with automatic cycle counter with timer.
7	Corrosion resistance ,Cl.10.7	Salt spray test set up, Torque wrench.
8	Operation at extremes of temperature, Cl.10.7.2	Humidity chamber, oven and Deep freezer, Torque wrench
9	Resistance to side load on Dead Bolt, Cl. 10.8.1	Force guage, Timer/Stop watch, vernier calipers.
10	Dead bolt Projection, Cl 10.8.2	Test apparatus as shown in Fig7, Vernier Calipers.
11	Requirement for end load on Dead Bolt, Cl 10.8.3	Test apparatus as shown in Fig7, Force guage, Stop watch
12	Resistance to end load	Force guage, Vernier calipers.
13	Resistance to side load on locking plate	Fixture for mounting the lock plate,force guage,Stop watch.
14	Manual Locking with intermediate locking position	Force guage.

15	Torque to withdraw the latch bolt with key	Suitable torque guage and adapter.
16	Effective differs, Non interchangeability, Non inter passing of key with just one interval differ, coding protection, Differing step heights on key	As per manufacturers coding system and documentation.

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

ANNEX C

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. Batch 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 below**.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 Control Unit: For the guidance of manufacturers in preparing the Quality Assurance Plan, the recommended definition of control unit is the Quantity of Rim Locks and Latches of same type, grade, size, shape and design and type of key operation and locking, manufactured under similar conditions from same consignment of rawmaterial in a day.

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 sub-contracted 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) also is 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. LABELLING AND MARKING – As per the requirement of IS 9131:2021. The Standard mark as given in the schedule of the Licence shall be marked legibly and indelibly on each Rim Lock 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 on product or package as follows: “For details of BIS certification please visit www.bis.gov.in”.

4. REJECTION - All the production which conforms to the Indian Standard and covered under scope of the licence shall be marked with 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)	(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				
Raw Materials							
6	Sizes	6.1	IS 9131	R	One	Each Control Unit	
9	Workmanship and Finish	9.1, 9.2, 9.3	IS 9131	R	Manufacturer shall exercise adequate levels of control so that entire production conforms to the Standard. Record shall be maintained		
10.1	Return force of latch Bolt	10.1	IS 9131	R	One	Each Control unit	-----
10.2	Resistance to side load on latch bolt	10.2	IS 9131	R	One	Each Control unit	-----
10.3	Torque to operate dead bolt	10.3	IS 9131	R	One	Each Control unit	
10.4	Torque resistance of Rim Lock with lockable handle/knob	10.4	IS 9131	R	One	Each Control unit	
10.5.1	Durability of latch action	10.5.1, Table 4	IS 9131	S	One	Grade 1- Every 12 month Grade 2- Every 6 months	

						Grade 3- Every 3 months	
10.5.2	Durability of dead bolt mechanism	10.5.2	IS 9131	S	One	Grade 1- Every 12 month Grade 2- Every 6 months Grade 3- Every 3 months	
10.7.1	Corrosion resistance	10.7.1, Table 6	IS 9131	S	One	Once in 6 months for each grade manufactured during 6 months	
10.7.2	Operation at extremes of temperature	10.7.2	IS 9131	S	One	Once in 6 months	
10.8.1	Resistance to slide load on deadbolt	10.8.1	IS 9131	S	One	Grade 1- Every 12 month Grade 2- Every 6 months Grade 3- Every 3 months	
10.8.2	Deadbolt projection	10.8.2	IS 9131	R	One	Each Control Unit	
10.8.3	Requirement for end load on deadbolt	10.8.2	IS 9131	S	One	Grade 1- Every 12 month Grade 2- Every 6 months Grade 3- Every 3 months	

10.8.4	Resistance to end load	10.8.4	IS 9131	S	One	Grade 1- Every 12 month Grade 2- Every 6 months Grade 3- Every 3 months	
10.8.5	Resistance to side load on locking plate	10.8.5	IS 9131	S	One	Grade 1- Every 12 month Grade 2- Every 6 months Grade 3- Every 3 months	
11.2.2	Manual locking	11.2.2	IS 9131	R	One	Each Control Unit	
11.2.3	Manual locking with intermediate locking position	11.2.3	IS 9131	R	One	Each Control Unit	
11.2.4	Torque to withdraw the latch bolt with key	11.2.4	IS 9131	R	One	Each Control Unit	
11.3	Key identification requirements	11.3.1, 11.3.2, 11.3.3, 11.3.4, 11.3.5, 11.3.6	IS 9131	R	One	Each Control Unit	

ANNEX – D**Scope of the Licence**

Licence is granted to use Standard Mark as per IS 9131:2021 with the following scope:	
Name of the product	Rim Locks and Latches (Mechanically Operated)
Type (1/2/3/4)	
Grade (1/2/3)	
Size	
Design (Locks and Latches opened with the key from both side/ Locks and Latches opened with one side key and other side knob)	
Type of Key Operation and Locking (Dead Locking/ Manual Locking)	