



**उत्पाद मैनुअल
आई एस 3614:2021 के अनुसार
अग्नि प्रतिरोधी दरवाजे और दरवाजा-सेट के लिए**

दस्तावेज संख्या – पी एम/आई एस 3614/2/दिसंबर 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
FIRE DOORS AND DOORSETS
ACCORDING TO IS 3614: 2021**

Document No.- PM/IS 3614/2/Dec 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.

भारतीय मानक ब्यूरो
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New Delhi – 110002



DRAFT PRODUCT MANUAL FOR FIRE DOORS AND DOORSETS ACCORDING TO IS 3614:2021

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1.	Product	:	IS 3614:2021
	Title	:	FIRE DOORS AND DOORSETS
	No. of Amendments	:	1
2.	Sampling Guidelines:		
a)	Raw material	:	As per Clause 7.2.1, 7.3.1, 7.4.1, 7.5.1 of IS 3614:2021
b)	Grouping guidelines	:	Please refer <u>ANNEX – A</u> .
c)	Sample Size	:	1 No. (Fire Doorsets including Fire Doors, Frames and applicable hardware shall be drawn for all tests)
3.	List of Test Equipments	:	Please refer <u>ANNEX – B</u> .
4.	Scheme of Inspection and Testing	:	Please refer <u>ANNEX – C</u> .
5.	Possible tests in a day :		
	- Sizes (Cl. 7.2.2, 7.3.2, 7.4.2, 7.5.2) - Construction (Cl. 7.2.3, 7.3.3, 7.4.3, 7.5.3) - Material Thickness, Vision Pane Dimensions and other dimensions as per drawing.		
6.	Scope of the Licence	:	Please refer <u>ANNEX – D</u> .

BUREAU OF INDIAN STANDARDS
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ANNEX – A

Grouping Guidelines

1. Fire Doors and Doorsets are classified as follows:

(a)

Type of Fire Door	Fire Door Classification (Rating & Insulation)
(i) Fire rated hinged doors (Metallic)	FD 30 UD/ FD 30 PI/ FD 30 ID/ FD 60 UD/ FD 60 PI/ FD 60 ID/ FD 90 UD/ FD 90 PI/ FD 90 ID/ FD 120 UD/ FD 120 PI/ FD 120 ID/ FD 180 UD/ FD 180 PI/ FD 180 ID
(ii) Fire rated hinged doors (Wooden composite)	FD 30 UD/ FD 30 PI/ FD 30 ID/ FD 60 UD/ FD 60 PI/ FD 60 ID/ FD 90 UD/ FD 90 PI/ FD 90 ID/ FD 120 UD/ FD 120 PI/ FD 120 ID
(iii) Fire rated sliding doors (Metallic)	FD 30 UD/ FD 30 PI/ FD 30 ID/ FD 60 UD/ FD 60 PI/ FD 60 ID/ FD 90 UD/ FD 90 PI/ FD 90 ID/ FD 120 UD/ FD 120 PI/ FD 120 ID/ FD 180 UD/ FD 180 PI/ FD 180 ID
(iv) Fire rated rolling shutter (Metallic)	FD 120 UD/ FD 120 PI/ FD 120 ID/ FD 180 UD/ FD 180 PI/ FD 180 ID/ FD 240 UD/ FD 240 PI/ FD 240 ID

(b) Insulation Type: Fully Insulated/ Partially Insulated/ Uninsulated

(c) Latch Condition: Latched/ Unlatched

(d) Door way opening size:

(i) Width upto and including ____ mm

(ii) Length upto and including ____ mm

(e) Door Leaf Thickness: Minimum ____ mm

(f) Material Thickness: Minimum ____ mm

(g) Infill material: Honeycomb paper core/ Mineral wool/ Ceramic wool/ Proprietary material

(h) Door Leaf Configuration: Single leaf / Double leaf

(i) Vision Pane: With/ Without vision pane on one/ both door leaf.

(j) Area of Vision Pane

2. Based on the above classifications, the following grouping guidelines shall be followed for considering GoL/CSoL, subject to the condition that there is no change in the hardware used in the fire doors and doorsets:

- (a) Each type of fire door and doorsets shall be tested separately to cover that particular type of Fire Doors and Doorsets.
 - (b) Each Fire Door classification (i.e. fire rating and insulation) shall be tested to cover that particular classification in the scope of licence.
 - (c) Fire Doors and Doorsets of each latch condition shall be tested separately to cover the Fire Doors and Doorsets of tested latch condition.
 - (d) Fire Doors and Doorsets with highest doorway opening size shall be tested to cover upto and including the tested doorway opening size.
 - (e) Fire Doors and Doorsets manufactured from least material thickness shall be tested to cover Fire Doors and Doorsets manufactured from higher material thickness.
 - (f) Fire Doors and Doorsets of each infill material shall be tested separately to cover the tested Fire Doors and Doorsets of the infill material tested.
 - (g) Fire Doors and Doorsets of each door configuration shall be tested separately to cover the Fire Doors and Doorsets of tested door configuration.
 - (h) Fire Doors and Doorsets with vision pane shall be tested to cover Fire Doors and Doorsets with and without vision pane.
 - (i) Fire Doors and Doorsets with higher area of vision pane shall be tested to cover Fire Doors and Doorsets with lesser area of vision pane.
3. The Firm shall declare the type of Fire doors, classification, Latch condition, Door way opening size, Door leaf thickness, Material thickness, Infill material, Door leaf configuration, availability of vision panes with its area, for all fire door and doorsets intended to be covered in the Licence.
4. The Firm shall submit the drawing of the Fire Doors and Fire Doorsets clearly indicating the Size of Door opening way, Size and Thickness of Door Leaf (s), Material thickness along with indication of various Hardware used. A hardware list clearly indicating their make, size, fire ratings, etc. shall also be submitted by the firm. Details stated in the drawing and the hardware list shall be verified and validated (for fire rating/integrity) by the third party testing laboratory before BIS approval.
5. The drawings and the Hardware list shall contain a unique identification number and shall be endorsed by BIS as a part of scope of licence.

6. The Scope of Licence shall be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
7. During the operation of the Licence, BO shall ensure that all the fire door and fire doorsets 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*

S.No.	Tests used in with Clause Reference	Test Equipments
1.	- Sizes (Cl. 7.2.2, 7.3.2, 7.4.2, 7.5.2) - Construction (Cl. 7.2.3, 7.3.3, 7.4.3, 7.5.3) - Material Thickness, Vision Pane Dimensions & other dimensions as per drawing.	- Vernier Calliper - Micrometer - Measuring Tape - Steel Scale
2.	Moisture content (wooden composite only)	- Moisture meter
3.	Fire Resistance (Cl 4.1)	- Test facilities as per IS 17518 (Part 1)

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 the requirement of IS 3614: 2021. The Standard Mark, as given in the Schedule of the licence, shall be marked on the labels affixed on doors, provided always that the doors thus marked conforms to all the requirements of the specification. In addition, the details of BIS website shall be marked on the labels affixed on doors, as follows: “For details of BIS certification please visit www.bis.gov.in”.

4. CONTROL UNIT – All Fire Doors and Fire Doorsets of same door type, with same fire rating, having same insulation type, with same latch condition, of same door way opening size, same door leaf, same vision pane, containing same infill material and having same construction (w.r.t hardwares) covered under a unique purchase order 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 clause 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.

7. TEST CERTIFICATES – During supply/ installation of fire doors and doorsets, the manufacturer shall issue the Letter of Compliance, Test Reports and Test Certificates to the project owner or end user as per Annex C of IS 3614:2021.

TABLE 1

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
5	Test for Fire Resistance (Fire Rating)	4, 5 & Table 1	IS 3614 & ISO 17518 (Part 1)	S	1	Every 5 years	@
7.2	Fire rated hinged doors (Metallic)						
7.2.1	Material	-	IS 277 or IS 513 (Part 1&2)	S	Each Consignment		*
7.2.2	Sizes	7.2.2	IS 3614	R	Firm to have adequate in-process controls to check compliance of this parameter as per the requirements given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity		
7.2.3	Construction	7.2.3	IS 3614	R			
7.2.4	Fire Door Frames	7.2.4	IS 3614	R			
7.2.5	Door Leaf	7.2.5	IS 3614	R			
7.2.6	Intumescent Seal	7.2.6	IS 3614	R			
7.2.7	Vision Pane	7.2.7	IS 3614	R			
7.2.8	Louvres	7.2.8	IS 3614	R	Firm to have adequate in-process controls to check compliance of this parameter as per the requirements given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity		
7.2.9	Builder’s Hardware	7.2.9	IS 3614	S			
7.3	Fire Rated Hinged Doors (Wooden Composite)						
7.3.1	Material	7.3.1	IS 3614	S	Each Consignment		*
7.3.2	Sizes	7.3.2	IS 3614	R	Firm to have adequate in-process controls to check compliance of this parameter as per the requirements given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity		

7.3.3	Construction	7.3.3	IS 3614	R	Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity	
7.3.4	Vision Pane	7.3.4	IS 3614	R		
7.3.6	Builder's Hardware	7.3.6	IS 3614	S	Each Consignment	#
7.4	Fire rated Rolling Shutters (Metallic)					
7.4.1	Material	-	IS 277 or IS 513 (Part 1&2)	S	Each Consignment	*
7.4.2	Sizes	7.4.2	IS 3614	R	Firm to have adequate in-process controls to check compliance of this parameter as per the requirements given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity	
7.4.3	Construction	7.4.3	IS 3614	R		
7.4.4	General Requirement of Fire Rated Rolling Shutter	7.4.4	IS 3614	R		
7.4.5	Operator	7.4.5	IS 3614	R		
7.4.5	Builder's Hardware	7.4.5	IS 3614	S	Each Consignment	#
7.5	Fire Rated Sliding Door (Metallic)					
7.5.1	Material	-	IS 277 or IS 513 (Part 1&2)	S	Each Consignment	*
7.5.2	Sizes	7.5.2	IS 3614	R	Firm to have adequate in-process controls to check compliance of this parameter as per the requirements given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity	
7.5.3	Construction of Sliding Door Leaf	7.5.3	IS 3614	R		
7.5.4	General Requirement of Fire Doors (Closing Devices, Releasing Devices & Hardwares)	7.5.4	IS 3614	S	Each Consignment	#
7.6	General Requirement of Fire Doors	7.6	IS 3614	R	Firm to have adequate in-process controls to check compliance of this parameter as per the requirements given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity	

@ The test is to be conducted whenever there is any change in material or design or construction or overall perimeter or width or height or vision pane size. Even if no change is envisaged, type test shall be done at last once in 5 years.

* The raw materials are covered under mandatory certification of BIS, shall be ISI marked and received along with manufacturers test certificate.

No further testing is required if received with a test certificate.

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 obligatory, to which the licensee shall comply with.

ANNEX – D**Scope of Licence**

Licence is granted to use Standard Mark as per IS 3614:2021 with the following scope:

Name of the Product	Fire Doors and Doorsets
Type of Fire Door	
Door Classification (Rating & Insulation)	
Latch Condition	
Door way opening size	(i) Width upto and including ____ mm (ii) Height upto and including ____ mm
Material Thickness	Minimum ____ mm
Infill material	
Door Leaf Configuration	
Vision Pane	With/ without
Area of Vision Pane	