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उत्पाद मैन्युअल
लकड़ी के सपाट दरवाजे के शटर (ठोस कोर प्रकार) - पार्टिकल बोर्ड, उच्च घनत्व फाइबर बोर्ड, माध्यम घनत्व फाइबर बोर्ड एवं फाइबर हार्डबोर्ड सतहयुक्त पल्ले के लिए
आई एस 2202 (भाग 2):2022 के अनुसार

PRODUCT MANUAL
WOODEN FLUSH DOOR SHUTTERS
(SOLID CORE TYPE) – PARTICLE BOARD, HIGH DENSITY FIBRE BOARD, MEDIUM DENSITY FIBRE BOARD AND FIBRE HARDBOARD FACE PANELS
ACCORDINGTO IS 2202 (PART 2): 2022

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो) अनुरूपता मूल्यांकन (विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity 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.

1.	**मानक संख्या** **IS No.**	:	IS 2202 (Part 2) : 2022
	शीर्षक **Title**	:	Wooden Flush Door Shutters (Solid Core Type) – Particle Board, High Density Fibre Board, Medium Density Fibre Board and Fibre Hardboard Face Panels
	संशोधनों की संख्या **No. of amendments**	:	1
2.	**नमूना दिशानिर्देश** **Sampling Guidelines**		
a)	**कच्चा माल** **Raw material**	:	Please refer to Annex-A Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be establishedduring Grant of Licence/Change in Scope of Licence/ Factory Surveillance
b)	**समूहीकरण दिशानिर्देश** **Grouping Guidelines**	:	Please refer to Annex-B

c)	**नमूने का परिमाण** **Sample Quantity**	:	- 2 Flush door shutters for all tests - Raw materials as per clause 6 of IS 2202 (Pt 2) Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (incase of market surveillance, effort may be made to procure therequired quantity of product sample, as far as possible since raw material sample may not be available in market)
3.	**परीक्षण उपकरणों की सूची** **List of Test Equipment**	:	Please refer to Annex-C
4.	**निरीक्षण और परीक्षण की स्कीम** **Scheme of Inspection and Testing**	:	Please refer to Annex-D
5.	**एक दिन में संभावित परीक्षण** **Possible tests in a day**		
	(i) Fittings (Clause 8.1), (ii) Workmanship and finish (Clause 9), (iii) Dimension and Squareness (Clause 5), (iv) General flatness test (Clause 11.2 of IS 2202-1), (v) Local planeness test (Clause 11.3 of IS 2202-1), (vi) Impact indentation test (Clause 11.4 of IS 2202-1), (vii) Flexure test (Clause 11.5 of IS 2202-1), (viii) Edge loading test (Clause 11.6 of IS 2202-1), (ix) Shock resistance test (Clause 11.7 of IS 2202-1), (x) Buckling test (Clause 11.8 of IS 2202-1), (xi) Slamming test (Clause 11.9 of IS 2202-1), (xii) Misuse test (Clause 11.10 of IS 2202-1)		
6.	**लाइसेंस का दायरा /Scope of the Licence:**		
	"Licence is granted to use Standard Mark as per IS 2202 (Part 2):2022 with the following scope:		
	Name of the product	Wooden Flush Door Shutters (Solid Core Type) – Particle Board, High Density Fibre Board, Medium Density Fibre Board and Fibre Hardboard Face Panels	
	Grade		
	Type and Construction of Core		
	Size	• Modular : Size Designations & Thickness • Non-Modular: Size (Height x Width x Thickness), mm	

ANNEX- A

Details of Raw Materials

Raw Material	Mode of Establishing Compliance
Timber (Cl 6.1)	Timber shall conform to Clause 6.1 of IS 2202 (Part 2):2022.
Alternative Material (Cl 6.2)	supplier test certificate/test report from BIS recognized lab/ empanelled lab or any other lab having accreditation as per IS/ISO/IEC 17025 or in house testing/combination thereof, as per Clause 6.2 of IS 2202 (Part 2)
Face Panels: Particle Board/ HDF/ MDF/ Fibre Hardboard (Cl 6.3)	supplier test certificate/test report from BIS recognized lab/ empanelled lab or in house testing/combination thereof, as per Clause 6.3 of IS 2202 (Part 2)
Adhesive (MR/ BWP grade) (Cl 6.4)	supplier test certificate/test report from BIS recognized lab/ empanelled lab or in house testing/combination thereof, as per Clause 6.4 of IS 2202 (Part 2)

ANNEX B
Grouping Guidelines

1. Wooden Flush Door Shutters as per IS 2202 (Part 2) are classified as given below:

   a) **Grade** – BWP/ MR

b) Type and Construction

Core	Type	Abbreviation
Blockboard	(i) Decorative with skins of decorative veneered/prelaminated particle board/HDF/MDF	B D P V
	(ii) Non-decorative with skins of particle board/MDF/HDF unveneered	B N P
	(iii) Non-decorative with skins of particle board/HDF/MDF veneered with commercial veneers	B N P V
Particle board	(i) Decorative with skins of decorative veneered/prelaminated particle board/HDF/MDF	P D P V
	(ii) Non-decorative with skins of particle board/HDF/MDF unveneered	P N P
	(iii) Non-decorative with skins of particle board/HDF/MDF veneered with commercial veneers	P N P V
Medium density fibre board	(i) Decorative with skins of decorative veneered/ prelaminated particle board/HDF/MDF	M D P V
	(ii) Non-decorative with skins of particle board/HDF/MDF unveneered	M N P
	(iii) Non-decorative with skins of particle board/HDF/MDF veneered with commercial veneers	M N P V

c) Sizes

Modular (with Designation of Doors) - 8 DS 20/ 8 DS 21/ 9 DS 20/ 9 DS 21/ 10 DS 20/ 10 DS 21/12 DT 20/ 12 DT 21

(D - Door, S - Single shutter, T - Double leaf shutter)

Non-Modular - Sizes other than modular sizes, as agreed to between the manufacturer and the purchaser, may also be permitted; provided, the thickness of shutters in such cases shall be equal to that specified against the nearest higher modular size given at clause (d) below.

d) Thickness

The nominal thickness of the shutters shall be 25mm, 30 mm and 35 mm corresponding to each of the sizes given below:

Flush Door Designation	Thickness of Shutter (mm)
8 DS 20/ 8 DS 21	25 or 30
9 DS 20/ 9 DS 21	30
10 DS 20/ 10 DS 21	35
12 DT 20/ 12 DT 21	35

For sizes greater than 12 DT 21, the thickness of such shutters shall be greater than 35 mm and shall be as agreed to between the manufacturer and the purchaser.

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

   a) Modular sizes:
      (i) Wooden Flush Door Shutters of the highest Size Designations from each Grade, Type and Construction of Core shall be tested for all requirements to cover Shutters of all lower Size designations including the size designation tested for that particular Grade, Type and Construction of Core tested.
      (ii) Lowest and highest thickness of door shutters shall be tested to include all the intermediate thicknesses of door shutters including the thicknesses tested.

   b) Non-modular sizes:
      (i) Wooden Flush Door Shutters of the highest Size (Height x Width) from each Grade, Type and Construction of Core shall be tested for all requirements to cover Shutters of all lower Sizes (Height x Width) including the size tested for that particular Grade, Type and Construction of Core tested.
      (ii) Lowest and highest thickness of door shutters shall be tested to include all the intermediate thicknesses of door shutters including the thicknesses tested.

3. The Firm shall declare the varieties of Wooden Flush Door Shutters they intend to cover 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 the Licence, BO shall ensure that all the types and sizes covered in the Licence are tested in rotation, to the extent possible.

ANNEX C

List of Test Equipment

(INDICATIVE LIST, FOR GUIDANCE ONLY)

S. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimensions and Squareness (Clause 5 & 10.1)	- Measuring Tape - Steel Scale - Micrometer - Vernier Calipers - Squareness Gauge - Straight Edge - Feeler Gauge
	Adhesive Testing (Clause 6.4)	- Moisture Meter - Stop Watch - Viscosity Cups B-4 Cup /B-6 Cup - Thermometer - Desiccators - IS Sieve - Air Conditioner - Dry /Wet Thermometer - Distilled Water - Electronic Balance - PH Meter - Enamelled Tray
2.	General flatness test (Clause 11.2 of IS 2202-1)	- General Flatness test assembly/fixture with Plump Bob - Feeler Gauge - Spirit Level
3.	Local planeness test (Clause 11.3 of IS 2202-1)	- Local Planeness test assembly/fixture with Dial Gauge - Spirit Level - Filler Gauge
4.	Impact indentation test(Clause 11.4 of IS 2202-1)	- Impact indentation test assembly/fixture with steel ball - Dial gauge - Ball stand
5.	Flexure test (Clause 11.5 of IS 2202-1)	- Flexure test arrangement with Loads
6.	Edge loading test (Clause 11.6 of IS 2202-1)	- Edge loading test arrangement with Loads - Depth gauge
7.	Shock resistance test (Clause 11.7 of IS 2202-1)	- Shock resistance test arrangement - Leather ball
8.	Buckling test (Clause 11.8 of IS 2202-1)	- Buckling resistance test arrangement with Loads - Angle protector
9	Slamming test (Clause 11.9 of IS 2202-1)	- Slamming Test assembly/fixture with Protractor, Stop watch - Hard wood strips
10	Misuse test (Clause 11.10 of IS 2202-1)	- Misuse test assembly with angle protector, hard wood strip and loading arrangement

11	Varying humidity test (Clause 11.11 of IS 2202-1)	- Temperature and humidity control cabinet
12	End immersion test (Clause 10.2 of IS 2202-2)	- Water tank - Drying arrangement of door
14	Glue adhesion test (Clause 10.3 of IS 2202-2)	- Cutter, water pan - Water Bath with temperature controller - Humidity Chamber with temperature controller
15	Screw withdrawal Resistance test (Clause 11.15 of IS 2202-1)	- Tensile Testing Machine with fixture for screw withdrawal - Screws - Dial Gauge - Hot Air Oven temperature controller

ANNEX D
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. lot/batch etc.) 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.

1.3 **RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT**:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is : All Flush door shutters of the same grade, type, size and construction of core manufactured under similar conditions in a day with the same adhesive compound made from constituents received in one day shall be considered as a control unit.

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 subcontracted 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 testingfacility for routine tests (indicated as “R” in Column 2 of Table 1) is also 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 laboratoryor 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. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on any of the edges of door shutter provided always that the material so marked conforms to each requirement of the specification.

3.1 Marking shall be done as per Clause 13 of IS 2202 (Part 2):2022.

3.2 A consignment of BIS certified wooden flush door shutters confirming to IS 2202 (Pt 2):2022 may be accompanied by a test certificate as given in Annex-1.

3.3 **Additional Marking requirements**: The material shall also be marked with the following additionalrequirement on <insert the place where marking can be done>:

a) "For BIS certification details please visit www.bis.gov.in"
b) Any other requirement not specified in the Indian Standard

4. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the 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

(ONLY FOR GUIDANCE PURPOSE)

(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**				
6.1	Timber	6.1	IS 2202 (Part 2) IS 2202 (Part 1)	R	One	Each Consignment	No further testing is required, if material received with test certificate or ISI Marked.
6.2	Alternative Materials (LVL VLL MDF HDF Plywood)	6.2	IS 2202 (Part 2) IS 14616 IS 16171 IS 12406 IS 303	R	One	Each Consignment	
6.3	Face Panels: Particle Board MDF/ HDF Fibre Hardboard	6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5	IS 2202 (Part 2) IS 17637 IS 14587 IS 2046	R	One	Each Consignment	
6.4	Adhesive	6.4	IS 2202 (Part 2) IS 848	R	One	Each lot received or each kettle	
6.5	Swelling in thickness of the particle board, MDF and HDF board	6.5	IS 2202 (Part 2) IS 2380 (Part 17)	R	One	Each Consignment	
7	Construction	7	IS 2202 (Part 2)	R	Manufacturer shall ensure that all his production confirms to the requirements of this clause.		
8	Fittings	8	IS 2202 (Part 2)	R			
9	Workmanship and finish	9	IS 2202 (Part 2)	R			
5	Dimensions and Squareness test	5 & Table 2	IS 2202 (Part 2) IS 4020 (Part 2)	R	Five	Each control unit	Sample shall be drawn at regular intervals. In case of failure, all

10.1	General flatness test	10.1	Cl 11.2 of IS 2202 (Part 1) IS 4020 (Part 3)	R			shutters covered incontrol unit shall be tested and only those shutters which are conforming to the requirements shall be marked.
	Local planeness test	10.1	Cl 11.3 of IS 2202 (Part 1) IS 4020 (Part 4)	R			
	Slamming test	10.1	Cl 11.9 of IS 2202 (Part 1) IS 4020 (Part 10)	R	One	Once in a week from each Grade, type and construction of core	In case of failure of sample, twice the number of samples from next two control units shall be tested and control units shall be accepted on passing of retested samples. Original frequency for testing may be resumed on passing of bothcontrol units.
10.2	End immersion test	11.12	IS 2202 (Part 2) IS 4020 (Part 13)	R	Two		
10.3	Glue adhesion test	11.14	IS 2202 (Part 2) IS 4020 (Part 15)	R			
10.1	Impact indentation test	10.1	Cl 11.4 of IS 2202 (Pat 1) IS 4020 (Part 5)	S	One	Once in six months from shutters of each Grade, type, size and construction of core	These tests shall also be conducted for every change inconstruction. In case of failure, marking shall be stopped and reasons for failure shall be investigated. The marking shall be resumedonly after two samples pass inthe requirements in whichfailure occurred.
	Screw withdrawal resistance test	10.1	Cl 11.5 of IS 2202 (Part 1) IS 4020 (Part 16)	S	One		
	Flexure test	10.1	Cl 11.5 of IS 2202 (Part 1) IS 4020 (Part 6)	S	One	Once in a year from shutters of each Grade, type, size and construction of core	
	Edge loading test	10.1	Cl 11.6 of IS 2202 (Part 1) IS 4020 (Part 7)	S	One		
	Shock resistance test	10.1	Cl 11.7 of IS 2202 (Part 1) IS 4020 (Part 8)	S	One		
	Buckling test	10.1	Cl 11.8 of IS 2202 (Part 1) IS 4020 (Part 9)	S	One		
	Misuse test	10.1	Cl 11.10 of IS 2202 (Part 1) IS 4020 (Part 11)	S	One		
11.11	Varying humidity test	10.1	Cl 11.11 of IS 2202 (Part 1) IS 4020 (Part 12)	S	One		

(OPTIONAL)

ANNEX-1

XYZ COMPANY **STANDARD MARK**

(Registered office address and works address)

TEST CERTIFICATE FOR WOODEN FLUSH DOOR SHUTTERS (SOLID CORE TYPE) – PARTICLE BOARD, HIGH DENSITY FIBRE BOARD, MEDIUM DENSITY FIBRE BOARD AND FIBRE HARDBOARD FACE PANELS ACCORDING TO IS 2202 (Pt 2):2022

TEST CERTIFICATE No._____DATE _____

TO M/s_____

It is certified that the material described below fully conforms to IS 2202 (Pt 2):2022 and tested in accordance with the Scheme of Inspection and Testing contained in the BIS Certification Marks Licence CM/L_____. The test results of acceptance test requirements are indicated below against the order No:

(PLEASE REFER TO IS 2202 (Pt 2):2022 FOR DETAILS OF SPECIFICATION REQUIREMENTS)

TEST RESULTS

Order No. & Date	Grade	Type & Construction	Size	Date of Mfg/ batch No	REQUIREMENTS							REMARKS
					Dimensions and squareness	General flatness	Local planeness	Slamming test	End immersion test	Knife test	Glue adhesion test	

REMARK

SHIPPING ADVICE No.

SIGNATURE:
NAME & DESIGNATION :
FOR XYZ COMPANY