



PRODUCT MANUAL FOR VENEERED DECORATIVE PLYWOOD ACCORDING TO IS 1328: 1996

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 1328 : 1996
	Title	:	VENEERED DECORATIVE PLYWOOD
	No. of Amendments	:	6
2.	Sampling Guidelines:		
a)	Raw material	:	a) Decorative Veneers – clause 6.1 of IS 1328 b) Adhesive – IS 848 c) Plywood – IS 303
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	Veneered Decorative Plywood - 1 sheet
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 :		
	(i)	Dimensions (Clause 5.3 and 8)	
	(ii)	Finish (Clause 9)	
	(iii)	MOE and MOR (Clause 5.3)	
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 1328 : 1996 with the following scope:		
	Name of the product	Veneered Decorative Plywood	
	Type	Type 1/ Type 2	
	Adhesive Grade	BWR/ MR	
	Size	Thickness upto and including -- mm	

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ANNEX A

Grouping Guidelines

1. Veneered decorative Plywood are classified based on the parameters as given below:
 - a) Type: Type 1 and Type 2
 - b) Adhesive Grade: BWR and MR
 - c) Thickness: 3 mm to 25 mm, and
 - d) Any dimensions as agreed to between the manufacturer and the purchaser are also permitted in addition to the standard dimensions.
2. Requirements for BWR grade is stringent than MR grade plywood, but Mycological test is applicable only for MR grade. Also for manufacturing of veneered decorative plywood of higher thickness, manufacturing capacity and infrastructure required is more critical than veneered decorative plywood with lesser thickness.
3. Considering the above following grouping guidelines for GoL/CSoL have been developed:
 - a) One sample of any type (Type 1 and Type 2) with highest thickness and any size for each grade (BWR and MR) shall be tested for all requirements to cover veneered decorative plywood of that type and grade tested for thickness upto and including the tested sample.
 - b) However, if veneered decorative plywood of Type 1 is tested, then veneered decorative plywood of Type 2 may also be covered.
4. The Firm shall declare the varieties of veneered decorative plywood they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing capability and Testing facilities of the Manufacturer.
5. 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***Major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Dimensions, Squareness and Edge Straightness, (Clause 8, 5.3)	Measuring Tape
		Steel Scale
		Micro Meter
		Vernier Caliper
		Squareness Gauge
		Straight Edge
		Feeler Gauge
2	Static bending strength (MOE and MOR Test) (Clause 5.3)	Tensile Testing Machine attached with MOE and MOR attachments and 100 mm. dial gauge
3	Mycological Test (Clause 5.3)	Enameled Mycological Tray with Sucrose / Saw Dust Fungus with spores
4	Water resistance test (Clause 5.3, 11.1.2, 11.1.2.1)	Water Bath fitted with digital temperature controller, Knife as per ISS, Stout Table
5	Moisture content (Clause 5.3, 11.1.1)	Hot Air Oven - thermostat controlled and fitted with thermometer
		Moisture Meter
6	Adhesive testing (Clause 5.2)	pH Meter
		IS Sieve
7	General test equipments required	Humidity Chamber with thermometer & hygrometer
		Desiccator
		Air Conditioner
		Dry-Wet Thermometer
		Electric Hot Plate
		Chemicals and glassware
		Viscosity Cup

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 the requirements of IS 1328: 1996.

4. CONTROL UNIT – All veneered decorative plywood of similar construction and type manufactured under similar conditions continuously with same mix of adhesive shall constitute a control unit. (Panels in which the arrangement of veneers is similar as regards thickness and species of timber for face plies shall be considered to be of similar construction.)

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 Standard 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 Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
5.1	Timber	5.1.1, 5.1.2	IS 1328	S	One	Each lot received	Record of each lot of timber received shall be maintained
5.2	Adhesive	5.2	IS 1328 IS 848	R	One	Each lot	No testing is required, if accompanied with test certificate or ISI marked.
5.3	Plywood	5.3	IS 1328 IS 303	R	One	Each lot of same grade and thickness	
6	Decorative Veneers	6.1 and 6.2	IS 1328	R	One	Each lot	No testing is required, if accompanied with test certificate.
7	Requirements (Visual Defects)	7.1 and 7.2	IS 1328	R	All	-	-
8	Dimensions and Tolerances	8.1 to 8.3	IS 1328	R	All	-	-
9	Finish	9.1 and 9.2	IS 1328	R	All	-	-
11.1.1	Moisture Content	11.1.1	IS 1328 IS:1734 (Part 1)	R	One	Each control unit	In case of failure, control unit shall be suitably reconditioned and re-tested. The control unit shall be accepted if retested sample passes the test.
11.1.2	Water Resistance Test	11.1.2	IS 1328 IS 1734 (Part 5)	R	One	Each control unit	In case of failure of sample, additional sample from same control unit shall be tested and control unit shall be accepted if retested sample passes the test.

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.