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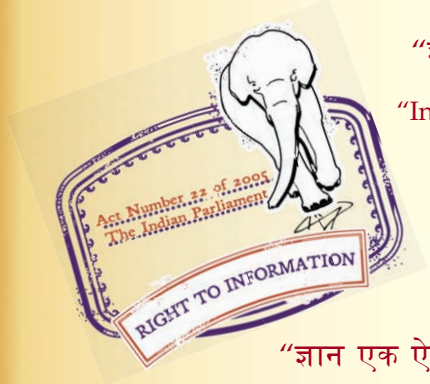
"पुराने को छोड नये के तरफ"
Jawaharlal Nehru
"Step Out From the Old to the New"

IS 3097 (2006): Veneered Particle Boards -Specification
[CED 20: Wood and other Lignocellulosic products]



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Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

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भारतीय मानक

पृष्ठावरित पार्टिकल बोर्ड — विशिष्टि

(दूसरा पुनरीक्षण)

Indian Standard

VENEERED PARTICLE BOARDS — SPECIFICATION

(Second Revision)

ICS 790.060.20

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 2006

Price Group 4

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Wood and Other Lignocellulosic Products Sectional Committee had been approved by the Civil Engineering Division Council.

Veneered particle boards find extensive use in buildings, furniture, automobile and bus body construction, sports goods, packing cases, etc. Veneered particle boards are of several grades and types, faced with decorative type or general purpose type veneers. Particle boards with decorative veneers are suitable for interior decoration and for making furniture. Wherever particle boards are exposed to high humidity, rains, etc, exterior grade boards will be suitable.

This standard was first published in 1965 to provide guidance to the industry in the development of this type of particle board. In the first revision, modifications were made in the requirements of different grades of the veneered particle boards. In this revision, the modifications found necessary in the present day context and incorporated in the standard through various amendments issued from time-to-time have been included. In addition the requirement for moisture content and the number of specimens to be tested for moisture content, water absorption, swelling in water, modulus of elasticity and modulus of rupture have been aligned with that specified in IS 3087, 'Particle boards of wood and other lignocelluloses material (medium density) for general purposes — Specification'.

A scheme of labelling environment friendly products to be known as ECO-Mark has been introduced at the instance of the Ministry of Environment and Forests (MoEF), Government of India. The ECO-Mark shall be administered by the Bureau of Indian Standards (BIS) under the *BIS Act*, 1986 as per the Resolution No. 71 dated 21 February 1991 and Resolution No. 425 dated 28 October 1992 published in the Gazette of the Government of India. For this purpose, the Standard Mark of BIS would be a single mark being a combination of the ISI Mark and the ECO logo. Requirements to be satisfied for a product to qualify for the BIS Standard Mark for eco friendliness will be optional. Manufacturing units will be free to opt for ISI Mark alone also.

The ECO-Mark criteria is based on the Gazette Notification No. 170 dated 18 May 1996 for Wood Substitutes as environment friendly products published in the Gazette of the Government of India.

In the formulation of this standard due weightage has been given to the need for international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

VENEERED PARTICLE BOARDS — SPECIFICATION

(Second Revision)

1 SCOPE

This standard covers the requirements such as grades and types, material, manufacture, dimensions and tests for veneered particle boards.

2 REFERENCES

The standards listed in Annex A contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated in Annex A.

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 707 and IS 3087 shall apply.

4 GRADES AND TYPES

4.1 Veneered particle boards shall be of two grades, namely, Grade I and Grade II.

4.1.1 Each grade shall be of the following four types:

a) *Type* 1 — *Veneered particle boards, solid core, general purpose* — These are veneered particle boards of solid core with faces of veneer of general purpose type.

b) *Type* 2 — *Veneered particle boards, solid core, decorative* — These are veneered particle boards with solid core but faced on one side or on both sides with decorative veneers.

c) *Type* 3 — *Veneered particle boards, tubular core, general purpose* — These are veneered particle boards with tubular core and faced with veneer of general purpose type.

d) *Type* 4 — *Veneered particle boards, tubular core, decorative* — These are veneered particle boards with tubular core faced with decorative veneers on one or both sides.

4.2 Designation

The grades and types of veneered particle boards shall be designated as given in Table 1.

Table 1 Designation of Veneered Particle Boards

(*Clause* 4.2)

Sl No.	Grade	Type	Designation
(1)	(2)	(3)	(4)
i)	I	Solid core, general purpose	SO GP-I
ii)	I	Solid core, decorative	SO D-I
iii)	I	Tubular core, general purpose	TU GP-I
iv)	I	Tubular core, decorative	TU D-I
v)	II	Solid core, general purpose	SO GP-II
vi)	II	Solid core, decorative	SO D-II
vii)	II	Tubular core, general purpose	TU GP-II
viii)	II	Tubular core, decorative	TUD-II

5 MATERIAL

5.1 Particle Board

Particle boards used for core of veneered particle board shall be conforming to IS 3087. The flat pressed-three layer, multilayer and graded board when used, shall be of FPT-1 grade conforming to IS 3087. For ECO-Mark the particle board used for core of veneered particle board shall be of medium density conforming to requirements of ECO-Mark specified in IS 3087.

5.2 Veneeers

Veneers used for cross-bands and faces shall be either sawn or rotary cut or sliced and shall be sufficiently smooth to permit even spread of glue.

5.2.1 *Species of Timber for Veneers*

Timbers for face veneers of general purpose type veneered particle boards and for cross-bands where used in all types and grades of veneered particle boards, shall be of Class I or Class II as given in Annex B. For ECO-Mark, species of timber as given in Annex B from sources other than natural forests such as timber from industrial and social forestry plantations, shade trees from tea and coffee estates, etc, shall be used.

5.2.1.1 Timbers for face veneers of decorative type veneered particle boards, shall be as specified for face veneers in IS 1328. For ECO-Mark, timber for face veneers of decorative type veneered particle boards shall conform to the requirements of ECO-Mark specified in IS 1328.

5.2.2 *Face Veneer*

Face and cross-band veneers of general purpose type veneered particle boards, shall be of Type A or Type B surface as specified in IS 303. Face veneers of decorative type veneered particle boards shall be of qualities suitable for Type 1 of veneered decorative plywood covered in IS 1328.

5.3 Adhesive

The adhesives used for bonding veneer shall be BWP or BWR type conforming to IS 848 for Grade I veneered particle board and MR type confirming to IS 848 for Grade II veneered particle board.

6 MANUFACTURE

6.1 Preservative Treatment of Veneers

Veneers of timber marked with an asterisk in Annex B and sapwood of all other timbers, when used for veneers, shall be given a preservative treatment at the veneer stage as specified in **7.1.1** of IS 303. Trimmed and cut ends of the finished veneered particle board shall be given a protective treatment by coating with any of the following preservatives:

a) Sodium pentachlorophenate or trichlorophenol to a retention level of 6 kg/m^3 or 8 kg/m^3 respectively;
b) 10 percent solution of copper nephthenate in mineral spirit; or
c) Shellac in spirit or phenol formaldehyde.

The purchaser may, however specify his own method of treatment.

6.1.1 Particle boards used as core shall be treated as and when required.

6.2 Cross-Band and Veneer

The construction shall be well-balanced around the central line. When only one side is provided with decorative face, the back face shall be so designed with material and thickness as to balance the stress likely to be developed in the face veneers.

6.2.1 Cross-band, where used, shall neither be less than 1.0 mm nor more than 3.0 mm in thickness. Face veneers shall be between 0.5 mm and 1.6 mm in thickness for commercial veneers and 0.5 mm to 1.0 mm in thickness for decorative veneers. The veneers shall be of uniform thickness within a tolerance of ± 5 percent.

6.2.2 The decorative veneers shall be spliced or taped at the edges. The joining of veneers shall be such as to develop a decorative match to obtain the required match in figure on the spliced or taped veneers. The veneers may have end-grain joints in cases of special matching like centre-matching, V-matching, etc.

6.2.3 Cross-bands, where used, shall be laid in such a manner that there are no gaps exceeding 0.8 mm and no overlaps. The cross-bands shall be free from dry rot and dead knots.

6.2.4 The veneers used shall have moisture content not exceeding 14 percent and the veneered particle board after pressing shall be conditioned to a moisture content of not less than 5 percent and not more than 15 percent.

6.2.5 The face veneers in case of veneered particle boards of the extrusion press type shall have their grain direction parallel to the direction of extrusion, that is, at right angles to the bulk orientation of the grains of the particles except in case of 5-ply veneered particle boards, in which case there need not be any distinction in this respect. In case of 5-ply veneered particle boards, the face veneers shall be made with its grain direction at right angles to the grain direction of the cross-bands. In all cases, the grains on both the faces of the assembled board shall run in the same direction.

6.2.6 Veneered particle boards shall be made either by glueing particle boards between the veneer or alternatively, between two sheets of plywood, but the total thickness of the skin of either side shall not exceed 5 mm. The thickness of the two skins shall be equal and uniform if the same species is used and no other provision is made for balanced construction. The adhesive used for either glueing the skin or glueing the plywood shall conform to **5.3** for the various grades.

6.2.7 *Lipping*

Lipping shall be provided if so specified by the purchaser. Lipping where provided, shall be internal when it shall have a total depth not less than 22 mm and have a thickness same as the thickness of the particle board core and shall be made out of well-seasoned timber battens of species as specified in IS 1659. The lipping may also be, if so agreed to by the purchaser, of suitable veneer glued on to the edges by use of a suitable adhesive.

6.3 Finish

All veneered particle boards shall be flat and squarely cut.

6.3.1 Both faces of veneered particle boards shall be sanded to a smooth even surface.

6.3.2 The veneered particle boards shall be uniform in thickness within the tolerance limits specified in **7.4**.

7 DIMENSIONS AND TOLERANCES

7.1 The dimensions of veneered particle boards shall be quoted in the following order:

The first dimensions shall represent the length, that is, the dimensions parallel to the grain of the faces, second the width and the third the thickness.

7.2 The thickness of veneered particle boards shall be the following:

6, 10, 12, 20, 25, 30, 35, 40, 45 and 50 mm.

7.3 The dimensions of veneered particle boards shall be as follows:

a) *Length*, in mm — 4 800, 3 650, 3 000, 2 700, 2 400, 2 100, 1 800, 1 500, 1 200, 1 000 and 900, and

b) *Width*, in mm — 1 800, 1 500, 1 200, 1 000, 900 and 450.

NOTE — Any other dimension (length, width and thickness) as agreed to between the manufacturer and the purchaser may also be used.

7.4 Dimensional Tolerance

The following tolerances on dimensions of finished boards shall be permissible:

Sl No.	*Dimension*	*Tolerance*
i)	Length	$^{+6}_{-0}$ mm
ii)	Width	$^{+3}_{-0}$ mm
iii)	Thickness	±5 percent
iv)	Edge straightness	2 mm per 1 000 mm or 0.2 percent
v)	Squareness	2 mm per 1 000 mm or 0.2 percent

NOTE — Edge straightness and squareness shall be tested as per Annex C.

8 SAMPLING

8.1 Scale of Sampling

8.1.1 *Lot*

In any consignment, all the veneered particle boards of the same grade, type and dimensions, manufactured under similar conditions of production shall be grouped together to constitute a lot.

8.1.1.1 The conformity of a lot, to the requirements of this standard, shall be ascertained on the basis of tests on veneered particle boards selected from it.

8.1.2 The number of veneered particle boards to be selected from a lot for tests shall be in accordance with Table 2.

Table 2 Number of Veneered Particle Boards to be Selected for Sampling

Sl No.	Lot Size *N*	Number of Sample Boards to be Selected *n*
(1)	(2)	(3)
i)	Up to 100	2
ii)	101 to 300	3
iii)	301 to 500	5
iv)	501 and above	8

8.1.2.1 The veneered particle boards shall be selected at random. In order to ensure randomness of selection, all the veneered particle boards in the lot may be arranged in a serial order and starting with any veneered particle board every *r*th veneered particle board may be selected till the required number is obtained, *r* being the integral part of N/n where N is the lot size and n is the sample size. Alternatively, for taking the sample boards at random, use may be made of the random number tables given in IS 4905.

9 TESTS AND ACCEPTING CRITERIA

9.1 Test Specimen

Before cutting the test specimens, the length, width, thickness and the squareness of the veneered particle boards selected as in **8.1.2** shall be measured according to IS 2380 (Part 2). The straightness of the edges shall also be measured in accordance with the procedure mentioned in Annex C. These shall conform to the dimensions and tolerances specified in **7.2** to **7.4**. From each of the particle boards selected, specimens shall be cut for the following tests from portions 150 mm away from the edges. The method of preparation and conditioning of test specimens shall be as specified in IS 2380 (Part 1).

a) *Determination of density* — Three test specimens from each sample conforming to dimensions specified in **2.1** of IS 2380 (Part 3) shall be taken and tested in accordance with the procedure mentioned therein.

The density of each specimen shall not vary from the mean density by more than ±10 percent.

b) *Determination of moisture content* — Three test specimens from each sample conforming to dimensions specified in **2.1** of IS 2380 (Part 3) shall be taken and tested in accordance with the procedure mentioned therein.

The average value of the moisture content shall be between 5 to 15 percent.

c) *Water absorption* — Three test specimens from each sample conforming to dimensions specified in **2.1** of IS 2380 (Part 16) shall be taken and tested in accordance with the procedure mentioned therein.

The value of water absorption shall not exceed 25 percent for 2 h soaking and 50 percent for 24 h soaking.

d) *Water resistance test* — Three test specimens of dimension 250 mm × 100 mm from each sample shall be taken and subjected to this test. Grade I particle boards shall not show signs of disintegration and/or shall not delaminate after 3 h boiling in water. Grade II particle boards shall not disintegrate and/or shall not delaminate after 3 h immersion in water at 60 ± 2°C.

NOTE — Minor checks and cracks in the veneered particle board core may develop because of differential stress in the core or veneers. This shall not be considered as disintegration.

e) *Determination of swelling in water*

1) *Swelling due to general absorption* — Three test specimens from each sample, conforming to dimensions as specified in **2.1** of IS 2380 (Part 17) shall be taken and tested in accordance with the procedures mentioned therein. Swelling in thickness in percentage of original thickness for 2 h immersion shall be determined and the same shall not be more than 7 percent.

2) *Swelling due to surface absorption* — Three test specimens from each sample conforming to dimension as specified in **2.1** of IS 2380 (Part 17) shall be taken and tested in accordance with the procedure laid down therein. The swelling in thickness due to surface absorption in 2 h shall not be more than 5 percent.

f) *Adhesion of plies* — Three test specimens of 200 mm × 100 mm shall be taken for test. The adhesion of the face veneers to the particle board core and the cross-bands and other veneers, where these exist, shall be such that when tested by forceful opening with a knife, these shall offer appreciable resistance and the exposed surface of veneer shall show signs of some adherent fibres distributed more or less uniformly.

The knife test is an empirical test and is only indicative and it should, therefore, be carried out with utmost care.

g) *Modulus of rupture (MOR) and modulus of elasticity (MOE)* — Three test specimens from each sample conforming to the dimensions as specified in IS 2380 (Part 4) shall be taken. Modulus of rupture and modulus of elasticity shall be determined for each test specimen in accordance with the methods prescribed in IS 2380 (Part 4). The average and minimum individual values of MOE for both grades of particle board, shall not be less than 2 500 N/mm² and 2 200 N/mm², respectively. The average and minimum individual values of MOR for both grades of particle boards shall not be less than 30 N/mm² and 27 N/mm², respectively.

h) *Determination of deflection under sustained load (long time loading test)* — If so required by the purchaser, one test specimen from each sample having length in the direction of the grain of face ply and conforming to the dimensions specified in **2.1** of IS 2380 (Part 13) shall be taken and tested in accordance with the procedure mentioned therein.

The deflection after 24 h under load and the residual deflection 24 h after the removal of load shall be as agreed to between the purchaser and the supplier.

9.2 The lot shall be considered to conform to a requirement of this standard, if all the sample boards have been found satisfactory in respect of that requirement.

10 ADDITIONAL REQUIREMENTS FOR ECO-MARK

10.1 General Requirements

The veneered particle board shall conform to the requirements of quality and performances specified in this standard.

10.1.1 The manufacturer shall produce to BIS environmental consent clearance from the concerned State Pollution Control Board as per the provisions of the *Water (Prevention and Control of Pollution) Act*, 1974 and *Air (Prevention and Control of Pollution) Act*, 1981 and *Water (Prevention and Control of Pollution) Cess Act*, 1977 alongwith the authorization, if required under the *Environment (Protection) Act*, 1986, while applying for ECO-Mark appropriate with enforced Rules and Regulations of Forests Department.

10.2 Specific Requirement

The veneered particle boards shall conform to the

specific requirements given for ECO-Mark under relevant clauses of the standard.

NOTE — The manufacture shall provide documentary evidence by way of certificate or declaration to Bureau of Indian Standards while applying for ECO-Mark.

11 MARKING

11.1 Each veneered particle board shall be legibly and indelibly marked on any of its edges with the following:

a) Name of the manufacturer or trade-mark, if any;
b) Grade and type of veneered particle board;
c) Thickness; and
d) The criteria for which the particle board has been labelled as ECO-Mark.

11.2 BIS Certification Marking

Each particle board may also be marked with the Standard Mark.

11.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

ANNEX A

(*Clause* 2)

LIST OF REFERRED INDIAN STANDARDS

IS No.	*Title*
303 : 1989	Specification for plywood for general purposes (*third revision*)
707 : 1976	Glossary of terms applicable to timber technology and utilization (*second revision*)
848 : 2006	Specification for synthetic resin adhesives for plywood (phenolic and aminoplastic) (*second revision*)
1328 : 1996	Veneered decorative plywood — Specification (*third revision*)
1659 : 2004	Block boards — Specification (*fourth revision*)
2380	Methods of test for wood particle boards and boards from other lignocellulosic materials:
(Part 1) : 1977	Preparation and conditioning of test specimens (*first revision*)
(Part 2) : 1977	Accuracy of dimensions of boards (*first revision*)
(Part 4) : 1977	Determination of static bending strength (*first revision*)
(Part 13) : 1977	Long time loading bending test (*first revision*)
(Part 16) : 1977	Determination of water absorption (*first revision*)
(Part 17) : 1977	Determination of swelling in water (*first revision*)
3087 : 2005	Particle boards of wood and other lignocellulosic materials (medium density) for general purposes — Specification (*second revision*)
4905 : 1968	Methods for random sampling

ANNEX B

(*Clause* 5.2.1 *and* 6.1)

SPECIES OF TIMBER

Sl No. (1)	*Trade Name* (2)	*Botanical Name* (3)	*Abbreviation* (4)
		Class I	
1.	Aini	*Artocarpus hirsutus*	AIN
2.	* Alder	*Alnus* spp.	ALD
3.	Amari	*Amoora* spp.	AMA
4.	Arjun	*Terminalia arjuna*	ARJ
5.	* Bahera	*Terminalia bellerica*	BAH
6.	* Birch	*Betula* spp.	BIR
7.	Bonsum	*Phoebe* spp.	BON
8.	* Carallia (Maniawga)	*Carallia brachiata* (Syn. *Carallia integerrima)*	CAR
9.	Champ	*Michelia* spp.	CHM
10.	Chaplash	*Artocarpus chaplasha*	CHP
11.	Chikrassy	*Chukrasia tabularis*	CHI
12.	* Chilauni	*Schima wallichii*	CHL
13.	* Deodar	*Polyalthia* spp.	DEB
14.	* Dhup	*Cunarium* spp.	DHU
15.	* Dillenia	*Dillenia* spp.	DIL
16.	Gamari	*Gmelina arborea*	GAM
17.	Gondsoroi	*Cinnamomum cecicodaphn*	GON
18.	Gurjan	*Dipterocarpus* spp.	GUR
19.	Haldu	*Adina cordifolia*	HAL
20.	Hathipaila	*Pterospermum acerifolium*	HAT
21.	* Hollock	*Terminalia myriocarpa*	HOL
22.	Hollong	*Dipterocarpus macrocarpus*	HON
23.	Jaman	*Syzygium* spp.	JAM
24.	* Jhingan	*Lannea coromandelica* (Syn. *Lannea grandis)*	JHI
25.	* Kanju	*Holoptelea integrifolia*	KAN
26.	Karani	*Cullenia rosayroana* (Syn. *Cullenia excelsa)*	KAR
27.	Kathal	*Artocarpus heterophyllus(Syn. Artocarpus integrifolius)*	KAT
28.	Kindal	*Terminalia paniculata*	KIN
29.	Kendu	*Diospyros* spp.	KEN
30.	Kokko	*Albizia lebbeck*	KOK
31.	Laurel	*Terminalia alata*	LAU
32.	Machilus	*Machilus* spp.	MAC
33.	* Mango	*Mangifera indica*	MAN
34.	Maple	*Acer* spp.	MAP
35.	Mahogany	*Swietenia* spp.	MAO
36.	Makai	*Shorea assamica*	MAK
37.	* Mundani	*Acrocarpus fraxinifolius*	MUN
38.	Nedunari	*Mansonia* spp.	NED
39.	Pali	*Palaquium ellipticum*	PAL
40.	* Piney	*Kingiodendron pinnatum* (Syn. *Hardwickia pinnata)*	PIN
41.	Poon	*Calophyllum* spp.	POO
42.	Pussur	*Xylocarpus molluccensis* (Syn. *Carapa moluccensis)*	PUS
43.	Pyinma	*Lagerstroemia hypoleuca*	PYI
44.	Red Bombwe	*Planchonia valida* (Syn. *Planchonia andamanica)*	RBO
45.	Rosewood	*Dalbergia latifolia*	ROS

Sl No. (1)	*Trade Name* (2)	*Botanical Name* (3)	*Abbreviation* (4)
46.	Satinwood	*Chloroxylon swietenia*	SAT
47.	Sissoo	*Dalbergia sissoo*	SIS
48.	Teak	*Tectona grandis*	TEA
49.	Toon	*Cedrela toona* spp.	TOO
50.	* Vellapine	*Vateria indica*	VEL
51.	* Walnut	*Juglans* spp.	WAL
52.	* White Bombwe (Badam)	*Terminalia procera*	WBO
53.	White Cedar	*Dysoxylum malabaricum*	WCE
54.	* White Chuglam	*Terminalia bialata* (Sapwood)	WCH
		Class II	
55.	* Amra	*Spondias* spp.	AMR
56.	* Banati	*Lophopetalum wightianum*	BAN
57.	* Chatian	*Alstonia scholaris*	CHT
58.	* Didu	*Salmalia insignis*	DID
59.	* Gokul	*Ailanthus grandis*	GOK
60.	* Garuga	*Garuga pinnata*	GAU
61.	* Gutel	*Trewia nudiflora*	GUT
62.	Jutili	*Altingia excelsa*	JUT
63.	* Kadam	*Anthocephalus cadamba*	KAD
64.	* Lampati	*Duabanga grandiflora* (Syn. *Duabanga sonnerotioides)*	LAP
65.	* Litsa	*Liteasa polyantha*	LIT
66.	* Maina	*Teterameles nudiflora*	MAI
67.	* Narikel	*Pterygota alata*	NAR
68.	Pitraj	*Aphanamixis polystachya*	PIT
69.	* Pula	*Kydia calycina*	PUL
70.	* Red Dhup	*Parishia insignis*	RDH
71.	Seleng	*Sapium baccatum*	SEL
72.	* Semul	*Salmalia malabarica*	SEM
73.	* Silver oak	*Grevillea robusta*	SOA
74.	* Udal	*Firmiana villosa* (Syn. *Sterculia villosa)*	UDA
75.	Uriam	*Bischofia javanica*	URI

ANNEX C

(*Clauses* 7.4 *and* 9.1)

METHOD OF TEST FOR EDGE STRAIGHTNESS AND SQUARENESS

C-1 PROCEDURE FOR EDGE STRAIGHTNESS

The straightness of the edges and ends of veneered particle board shall be verified against a straight edge not less than the full length of the veneered particle board. If the edge on the end of the veneered particle board is convex, it shall be held against the straight edge in such a way as to give approximately equal gap at each end. The largest gap between the straight edge and the edge shall be measured to the nearest millimetre and recorded.

C-2 PROCEDURE FOR SQUARENESS

The squareness of veneered particle board shall be checked with a 1 200 mm × 1 200 mm square, by applying one arm of the square to the veneered particle board. The maximum width of the gap shall be recorded.

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act,* 1986 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

This Indian Standard has been developed from Doc : No. CED 20 (7334).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110 002
Telephones : 2323 01 31, 2323 33 75, 2323 94 02

Telegrams : Manaksanstha
(Common to all offices)

Regional Offices :		Telephone
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Printed at Prabhat Offset Press, New Delhi-2