भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI 110002

व्यापक परिचालन मसौदा

हमारा संदर्भः सीईडी 20/टी-1 **07/08/2024**

तकनीकी समिति : लकड़ी और अन्य लिग्नोसेल्युलोसिक उत्पाद अनुभागीय समिति , सीईडी 20

प्राप्तकर्ता :

क) सिविल इंजीनियरी विभाग परिषद्, सीईडीसी के सभी सदस्य
ख) लकड़ी और अन्य लिग्नोसेल्युलोसिक उत्पाद अनुभागीय समिति , सीईडी 20 के सभी सदस्य
ग) रूचि रखने वाले अन्य निकाय

महोदय/महोदया,

निम्नलिखित मानक का मसौदा संलग्न है:

प्रलेख संख्या	शीर्षक
सीईडी 20(26328)WC	**सामान्य प्रयोजन के लिए प्लाईवुड – विशिष्टि** **(चौथा पुनरीक्षण)** **(IS 303:2024 का पहला संशोधन)** (ICS 79.060.10)

कृपया इस मानक के मसौदे का अवलोकन करें और अपनी सम्मतियॉ यह बताते हुए भेजे कि यदि यह मानक के रूप में प्रकाशित हो तो इस पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयाँ आ सकती हैं ।

सम्मतियॉ भेजने की अंतिम तिथि : **06 अक्टूबर 2024**

सम्मति यदि कोई हो तो कृपया अधोहस्ताक्षरी को ई-मेल द्वारा ced20@bis.gov.in पर या उपरलिखित पते पर, संलग्न फोर्मेट में भेजें। सम्मतियाँ बीआईएस ई-गवर्नेंस पोर्टल, www.manakonline.in के माध्यम से ऑनलाइन भी भेजी जा सकती हैं।

यदि कोई सम्मति प्राप्त नही होती है अथवा सम्मति में केवल भाषा सम्बन्धी त्रुटि हुई तो उपरोक्त प्रलेख को यथावत अंतिम रूप दिया जाएगा। यदि सम्मित तकनीकी प्रकृति की हुई विषय समिति के अध्यक्ष के परामर्श से अथवा उनकी इच्छा पर आगे की कार्यवाही के लिए विषय समिति को भेजे जाने के बाद प्रलेख को अंतिम रूप दे दिया जाएगा ।

यह प्रलेख भारतीय मानक ब्यूरो की वैबसाइट www.bis.gov.in पर भी उपलब्ध हैं।

धन्यवाद ।

भवदीय,

(द्वैपायन भद्रा.)
प्रमुख (सिविल इंजीनियरी)

संलग्नक : उपरिलिखित

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI 110002

DRAFT IN WIDE CIRCULATION

Our Ref: CED 20/T- 1 **07/08/2024**

TECHNICAL COMMITTEE: WOOD AND OTHER LIGNOCELLULOSIC PRODUCTS SECTIONAL COMMITTEE, CED 20

ADDRESSED TO:

a) All Members of Civil Engineering Division Council, CEDC
b) All Members of Wood And Other Lignocellulosic Products Sectional Committee, CED 20 and its Subcommittees
c) All others Interests

Dear Sir(s),

Please find enclosed the following document:

Doc No.	Title
CED 20(26328) WC	**IS 303: 2024 PLYWOOD FOR GENERAL PURPOSES — SPECIFICATION (Fourth Revision) (First Amendment of IS 303:2024)** (ICS 79.060.10)

Kindly examine the draft standard and forward your views stating any difficulties which you are likely to experience in your business or profession, if this is finally adopted as National Standard.

Last Date for comments: **06 October 2024**

Comments if any, may please be made in the enclosed format and emailed at ced20@bis.gov.in or sent at the above address. Additionally, comments may be sent online through the BIS e-governance portal, www.manakonline.in.

In case no comments are received or comments received are of editorial nature, you will kindly permit us to presume your approval for the above document as finalized. However, in case of comments of technical in nature are received then it may be finalized either in consultation with the Chairman, Sectional Committee or referred to the Sectional Committee for further necessary action if so desired by the Chairman, Sectional Committee.

The document is also hosted on BIS website www.bis.gov.in.

Thanking you,

Yours faithfully,

(**Dwaipayan Bhadra**)

Head (Civil Engg.)

Encl: as above

FORMAT FOR SENDING COMMENTS ON THE DOCUMENT

[Please use A4 size sheet of paper only and type within fields indicated. Comments on each clause/sub-clause/ table/figure, etc, be stated on a fresh row. Information/comments should include reasons for comments, technical references and suggestions for modified wordings of the clause. Comments through e-mail to **ced20@bis.gov.in** shall be appreciated.]

Doc. No.: CED 20(26328)WC

BIS Letter Ref: CED 20/T-1

Title: PLYWOOD FOR GENERAL PURPOSES — SPECIFICATION (*Fourth Revision*) (First Amendment of IS 303:2024)

Last date of comments: 06 October 2024

Name of the Commentator/ Organization: _____

Sl No.	Clause/ Para/ Table/ Figure No. commented	Type of Comment (General/ Technical/ Editorial)	Comments/ Modified Wordings	Justification of Proposed Change

NOTE- Kindly insert more rows as necessary for each clause/table, etc

DRAFT FOR COMMENTS ONLY

Wood and Other Lignocellulosic Products Sectional Committee, CED 20	Last Date of comments 06 October 2024

DRAFT AMENDMENT NO. 1

To

IS 303: 2024 PLYWOOD FOR GENERAL PURPOSES — SPECIFICATION

(Fourth Revision)

(*Page* 1, *clause* 4.2) – Insert the following new clause '**4.3**' after '**4.2**' and re-number the subsequent clause '**4.3**' as '**4.4**':

'In terms of bending class, each grade of plywood shall be further classified in bending classes, and class shall be expressed as (MOR) $F_{al/ac}$ and (MOE) $E_{al/ac}$.

(*Page* 1, *clause* 5.1) – Substitute the following for the existing:

'Surfaces of plywood for general purposes shall be classified into different types namely A, B and C based on their quality. The type of plywood shall, therefore, be designated by the kind of surfaces (top and bottom) of the panels. The better quality surface shall be called 'face(top)', and the opposite side shall be called 'back(bottom)'. The type of plywood shall denote first the quality of top followed by the quality of bottom. For example, Type AA shall have both surfaces of quality A, Type AB shall have top of quality A and the bottom of quality B and Type CC shall have both the surfaces of quality C. Plywood of both C type surfaces shall be used only in application like sofa furniture where the plywood used to get covered by other materials like foam/upholstery. The manufacturer shall declare the type of plywood as above mentioned in the example.'

(*Page* 2, Table 1) – Substitute the following for the existing:

Table 1 Quality Requirements of Surfaces of Plywood for General Purposes

(*Clause* 5.2)

Sl No.	**Defect Categories**	**Type of Surfaces**		
		A type	**B type**	**C type**
(1)	(2)	(3)	(4)	(5)
i)	Blister	Nil	Nil	Nil
ii)	Checks	Individual check not more than 50 mm in length and the total length not	Individual check not more than 100 mm in length and the total length	Individual check not more than 125 mm in length and the total length not more 1 200 mm per m^2 area

Sl No.	Defect Categories	Type of Surfaces		
		A type	**B type**	**C type**
(1)	(2)	(3)	(4)	(5)
		more 300 mm per m^2 area	not more 1 000 mm per m^2 area	
iii)	Discolouration	Nil	5 percent	75 percent
iv)	Dote	5 cm per m^2	15 cm per m^2	25 cm per m^2
v)	Insect hole	Scattered up to 12 holes per m^2	Scattered up to 24 holes per m^2	Scattered up to 50 holes per m^2
vi)	Joints	One joint for every multiple of 200 mm, provided no individual piece is less than 100 mm in width	No restriction	No restriction
vii)	Knots (Dead)	2 up to 12 mm dia per m^2	4 up to 20 mm dia per m^2	8 up to 20 mm dia per m^2 including drop out knot holes may be permitted
viii)	Pin knots (Dead)	2 per m^2	6 per m^2	No restriction
xi)	Pin knots (Live)	No restriction	No restriction	No restriction
x)	Knots (Tight)	6 up to 25 mm dia per m^2	No restriction	No restriction
xi)	Patches	4 patches per m^2, provided they are all tight patches and do not mar the appearance	Any number, provided they are all tight patches and do not mar the appearance	Any number, provided they are all tight patches and do not mar the appearance
xii)	Splits	2 splits, each not more than 1 mm wide and length not more 100 mm, provided they are filled with suitable filler	3 splits, each not more than 4 mm wide and length not more 150 mm, provided they are filled with suitable veneer inserts. Splits up to 25 mm long and 0.8 mm wide may be ignored, provided they are suitably	6 splits, not more than 25 mm wide and length not more 400 mm.

Sl No.	**Defect Categories**	**Type of Surfaces**		
		A type	**B type**	**C type**
(1)	(2)	(3)	(4)	(5)
			filled with a filler	
xiii)	Swirl	Unlimited, provided they do not mar the appearance	No restriction	No restriction

(*Page* 2, Table 2) – Substitute the following for the existing:

Table 2 Permissible Categories of Defects

(*Clause* 5.2)

Sl No.	*Type of Surface*	*Maximum Number of Categories of Permissible Defects, per sq metre*
(1)	(2)	(3)
i)	Type A	3
ii)	Type B	5
iii)	Type C	As agreed between the manufacturer and the purchaser (s*ee Note*)

NOTE – In case of Type C surface, the maximum number of categories of permissible defects, per sq. meter shall be declared by the manufacturer in marking information on the plywood.

(*Page* 3, *clause* 7.2.2, *line* 5) – Delete ‘metal’.

(*Page* 4, *clause* 9.1, *line* 2) – Substitute ‘8.4’ for ‘8.3’.

(*Page* 4, *clause* 11.1) – Insert the following in the end of the paragraph.

‘The plywood of upto and including 4 mm thickness used solely as the base for veneered decorative plywood shall conform only to the requirements given in IS 1328 corresponding to IS 303.’

(*Page* 5, *clause* 11.5, first paragraph, *line* 3) – Delete ‘and a minimum individual’.

(*Page* 5, *clause* 11.5, first paragraph, *line* 6) – Delete ‘against each grade’.

(*Page* 5, *Table* 4) – Substitute the following for the existing:

Table 4 Average Values of Modulus of Elasticity (MoE) and Modulus of Rupture (MoR)
(*Clause* 11.5)

Sl. No.	**Properties**	**Bending Class (*F*)**	**Requirements**
(1)	(3)	(2)	(4)
i)	Modulus of Elasticity (MoE), $E_{al/ac}$, N/mm^2. Along (direction parallel to the grain direction of the top veneer) and Across (direction perpendicular to the grain direction of the top veneer)	Bending Class, E_{10}	≥ 1000 and < 2000
ii)		Bending Class, E_{20}	≥ 2000 and < 3000
iii)		Bending Class, E_{30}	≥ 3000 and < 4000
iv)		Bending Class, E_{40}	≥ 4000 and < 5000
v)		Bending Class, E_{50}	≥ 5000
vi)	Modulus of Rupture (MoR) $F_{al/ac}$, N/mm^2. Along (direction parallel to the grain direction of the top veneer) and Across (direction perpendicular to the grain direction of the top veneer)	Bending Class, F_{10}	≥ 10 and < 20
vii)		Bending Class, F_{20}	≥ 20 and < 30
viii)		Bending Class, F_{30}	≥ 30 and < 40
ix)		Bending Class, F_{40}	≥ 40 and < 50
x)		Bending Class, F_{50}	≥ 50

[*Page* 6, *clause* 13.1, c)] – Substitute the following for the existing:

c) The grade and type. For example, BWP/AA, BWP/AB, BWP/CC etc.

[*Page* 6, *clause* 13.1, c)] – Insert the following new clause after 'c)' and re-number the subsequent clauses:

d) Bending class, MoR (Along/Across the grain direction), MoE (Along/Across the grain direction). For Example:

(MoR – Along) F_{al} = 22.4 N/mm^2, (MoR- Across) F_{ac} = 36.9 N/mm^2,

(MoE – Along) E_{al}= 2850 N/mm^2 and (MoE – Across) E_{ac} = 4200 N/mm^2.

The class is expressed as: (MoR) $F_{20/30}$, (MoE) $E_{20/40}$.

(CED 20)

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