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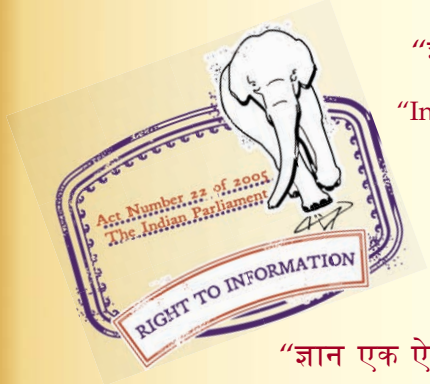
IS 14315 (1995): Commercial veneers -Specification [CED 20: Wood and other Lignocellulosic products]



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"Knowledge is such a treasure which cannot be stolen"

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IS 14315 : 1995
Reaffirmed 2009

भारतीय मानक

व्यवसायिक विनियर — विशिष्टि

Indian Standard

COMMERCIAL VENEERS-SPECIFICATION

ICS No. 79·060

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

November 1995 Price Group 3

Wood Products Sectional Committee, CED 20

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Wood Products Sectional Committee had been approved by the Civil Engineering Division Council.

Veneers are used for manufacture of a number of reconstituted lignocellulosic panel products, like different types of plywood, blockboard and veneered boards, and flushdoor. Thus proper specification of veneers forms an essential requirement for controlling the quality of above veneered products. This standard is, therefore, being formulated to lay down necessary requirements of commercial veneers. A separate standard is also being prepared to cover specifications for decorative veneers.

The composition of the technical committee responsible for the formulation of this standard is given at Annex C.

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.

AMENDMENT NO. 1 NOVEMBER 2008
TO
IS 14315 : 1995 COMMERCIAL VENEERS — SPECIFICATION

(*Page* 3, *clause* **9.2**, *fourth line*) — Substitute 'IS 303' *for* 'IS 12049 : 1987'.

(CED 20)

Reprography Unit, BIS, New Delhi, India

Indian Standard
COMMERCIAL VENEERS — SPECIFICATION

1 SCOPE

This standard covers the requirements for commercial veneers used for faces, core and crossbands in the manufacture of plywood, blockboard, veneered boards and flushdoor.

2 REFERENCES

The Indian Standards listed in Annex A are necessary adjuncts to this standard.

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 707 : 1976 shall apply.

4 CLASSIFICATION BY APPEARANCE

Veneers shall be classified into two types of surfaces namely, Type A and Type B. The quality requirements in terms of permissible defects for the two types of surface shall be as given in Table 1. However, the maximum number of categories of defects permitted on the veneer surface shall be restricted in accordance with the requirement given in Table 2.

Table 1 Quality Requirements of Veneers
(*Clauses* 4, 6 *and* 7)

Sl No.	Defect Categories	Types of Surfaces	
		A	B
i)	Discolouration	Nil	5 percent
ii)	Dote	50 mm/m^2	150 mm/m^2
iii)	Insect hole	Scattered up to 12 holes/m^2	Scattered up to 24 holes/m^2
iv)	Joints	One joint for every multiple of 200 mm provided no individual piece is less than 100 mm in width	No restriction
v)	Knots (dead)	2 No. up to 12 mm dia/m^2	4 No. up to 20 mm dia/m^2
vi)	Pin knots (dead)	2 No./m^2	6 No./m^2
vii)	Pin knots (live)	No restriction	No restriction
viii)	Knots (tight)	6 No. up to 25 mm dia/m^2	No restriction
ix)	Patches	4 patches/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
x)	Splits	2 splits, each not more than 1 mm wide and length not more than 100 mm	3 splits, each not more than 4 mm wide and length not more than 150 mm
xi)	Swirl	Unlimited, provided they do not mar the appearance	No restriction

Table 2 Permissible Categories of Defects
(*Clauses* 4, 6 *and* 7)

Types of Surfaces	Maximum Number of Categories of Permissible Defects per square metre
A	3
B	5

5 MANUFACTURE

5.1 The veneers shall be either rotary cut or sliced. The veneer shall be tight, smooth and uniformly thick and free from other machining defects such as corrugation, woolliness, waviness, bulging of knots, buckle, knife-pressure bar marks, raised or torn grain, etc. One of the most important quality requirements of veneer is tightness. The veneer is called tight or loose on the basis of depth of penetration of checks which are small breaks known as lathe or slicer or knife checks formed on the knife side during cutting of veneer. Figure 1 shows the tight and loose side of veneer during peeling. The veneer is classified as tight if the depth of penetration of checks does not exceed 50 percent of the veneer thickness when measured as per the procedure given in Annex B. Treatment as specified in **5.2** shall be given wherever necessary. Surface smoothness of veneer is directly related to tightness. As the tightness increases smoothness of the veneer increases. The uniformity in thickness along and across the grain shall be checked with the help of dial thickness gauge, which is suitably spring loaded and suitable for this purpose. Veneers intended to be glued with phenolic and urea resins shall be dried to a moisture content of 4 percent to 6 percent and 6 percent to 8 percent respectively. The dried veneer should be free from drying defects such as buckle, end waviness, splits, checks and case hardening.

5.2 Treatment

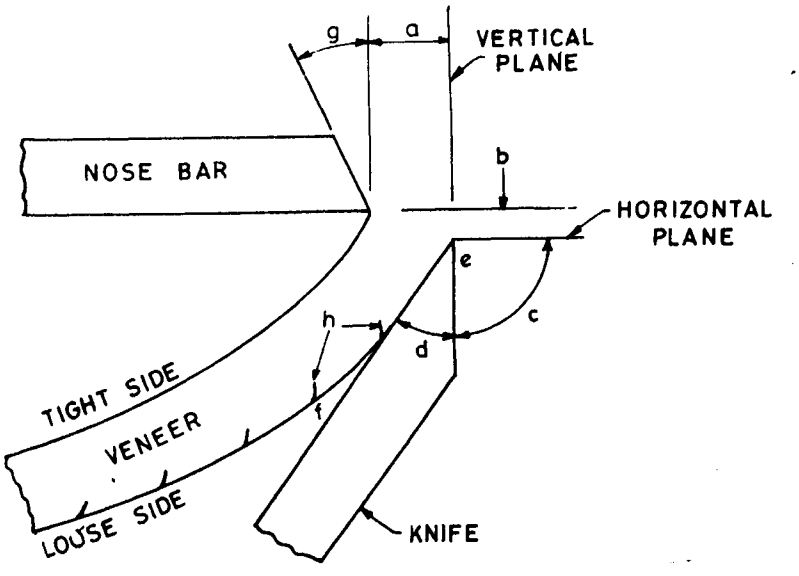
Veneers from non-durable species and sapwood of all species (*see also* IS 401:1982) shall be soaked in 1.25 percent solution of boric acid or 1.9 percent solution of borax at a temperature of 85°C to 90°C for a period of 10 to 40 minutes depending upon the thickness of the veneers or the veneers shall be dipped in 2 percent solution of boric acid or 3 percent borax solution for 2 minutes and block stacked at least for two hours before drying.

6 FACE VENEER

Face veneer shall be of Type A and/or Type B conforming to the requirements specified in Table 1 and Table 2.

7 CORE AND CROSSBAND VENEER

Core and crossband veneer shall be of Type B conforming to the requirements specified in Table 1 and Table 2.



a — Horizontal opening
b — Vertical opening
c — Knife angle
d — Knife level angle
e — Knife face
f — Knife back
g — Nose bar level with the vertical plane
h — Lathe checks

FIG. 1 RELATIVE POSITIONS OF KNIFE, NOSE BAR AND VENEER

8 JOINTS IN VENEERS

Veneers that require jointing to form Type A or Type B surface shall be spliced (edge jointed). Alternatively, the veneers may be taped on the face of the outer veneers in which case the tape shall be removed at a later stage. Metal clips or staples, if used shall be removed. Perforated tapes may be used on the glue side of the veneers.

9 DIMENSIONS AND TOLERANCES

9.1 Unless otherwise specified, the first dimension is the dimension along the grain direction of the veneer and the second dimension is the dimension across the grain direction of the veneer.

9.2 Unless otherwise specified, the dimensions of veneers shall be as obtained by adding 50 mm (for trimming) to the dimensions for general purpose plywood given in IS 12049:1987.

9.3 Maximum thickness of veneer shall be 6 mm.

9.4 Tolerances

9.4.1 The following tolerances shall be permissible on the dimensions:

Dimension	*Tolerances*
Length	+ 6 mm 0 mm
Width	+ 3 mm 0 mm

9.4.2 *Squareness* — 0.2 percent.

9.4.3 *Edge straightness* — 0.2 percent.

10 SAMPLING

The method of drawing representative samples and criteria for conformity shall be as prescribed in IS 7638 : 1986 for general purpose plywood (IS 303 : 1989).

11 MARKING

11.1 Each veneer shall be legibly and indelibly marked or stamped with the following:

a) Indication of the source of manufacture;
b) Year of manufacture;
c) Batch No.; and
d) Type of the veneer, that is, Type A or Type B.

11.2 All markings shall be done on the face of the veneer near one corner.

11.3 BIS Certification Marking

The product may also be marked with the Standard Mark.

11.3.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act,* 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of 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*	*IS No.*	*Title*
303 : 1989	Specification for plywood for general purposes (*third revision*)	7638 : 1986	Methods of sampling for plywood, fibre hardboard, insulation boards and particle boards (*first revision*)
401 : 1982	Code of practice for preservation of timber (*third revision*)	12049 : 1987	Dimensions and tolerances relating to wood based panel materials
707 : 1976	Glossary of terms applicable to timber technology and utilization (*second revision*)		

ANNEX B

(*Clause* 5.1)

METHOD OF EVALUATION OF LATHE CHECKS

Apply an alcohol-soluble dye to the checks by brushing it on the loose side of dry veneer surface. The dye penetrates into the checks. The depth of checks as a percentage of veneer thickness can be estimated from scarfed sections of the samples, using a magnifying glass as shown in Fig. 2.

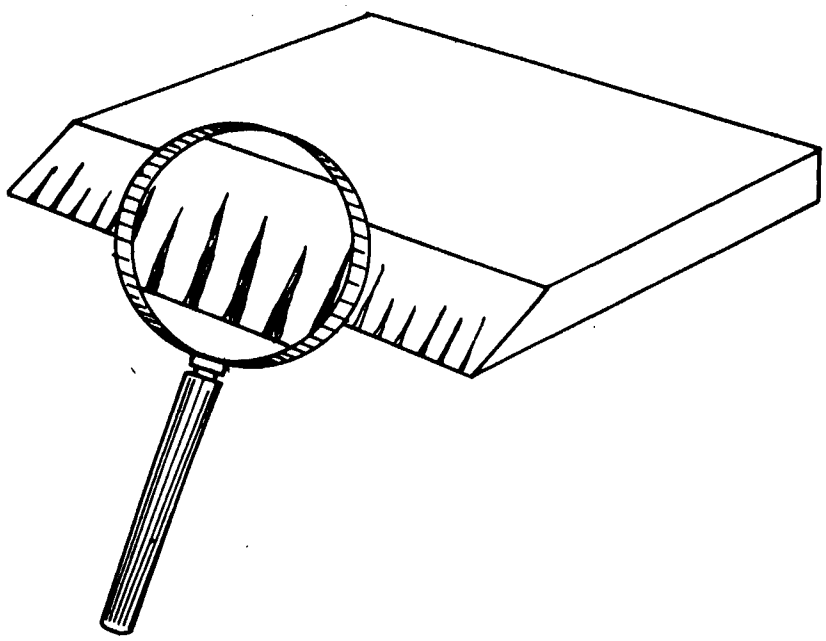


FIG. 2 A SCARFED SAMPLE OF VENEER VIEWED THROUGH MAGNIFYING GLASS TO SHOW LATHE CHECKS ON WHICH DYE WAS APPLIED PRIOR TO SCARFING TO MAKE THE CHECKS STAND OUT

ANNEX C
(Foreword)

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(*Continued on page* 6)

(*Continued from page* 5)

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This Indian Standard has been developed from Doc No:CED 20 (5241).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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