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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

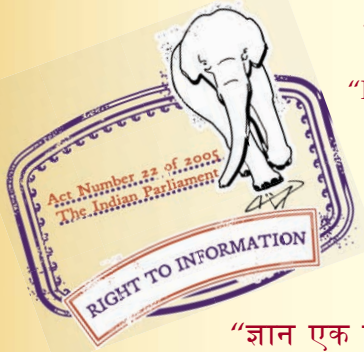
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11525 (1986): wooden chairs for office purposes [CED 35: Furniture]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR
WOODEN CHAIRS FOR OFFICE PURPOSES

UDC 684.432.041 : 651.2



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

*Indian Standard*SPECIFICATION FOR
WOODEN CHAIRS FOR OFFICE PURPOSES

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Indian Standard

SPECIFICATION FOR WOODEN CHAIRS FOR OFFICE PURPOSES

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 28 February 1986, after the draft finalized by the Furniture Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 In view of the fast expanding furniture industry and the trend of manufacturers to industrialize and mechanism process, it has become possible to produce items of office furniture to strict standards of accuracy and strength. It is with this view that this standard has been prepared to specify dimensions and methods of tests for chairs.

0.3 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*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard lays down requirements for material, construction, finish and tests for wooden chairs for office use.

2. MATERIALS

2.1 Timber — Any timber species recommended for furniture and cabinet making (*see* IS : 399-1963†) shall be used. The timber used shall be straight grained, free from defects and well seasoned. The moisture content shall be in accordance with IS : 287-1973‡. Sapwood of all durable species and timber of non-durable species shall be given a preservative treatment as specified in IS : 401-1982§.

*Rules for rounding off numerical values (*revised*).

†Classification of commercial timbers and their zonal distribution (*revised*).

‡Recommendations for maximum permissible moisture content for timber used for different purposes (*second revision*).

§Code of practice for preservation of timber (*third revision*).

2.2 Adhesives — Adhesives used for joinery work shall conform to IS : 4835-1979* and IS : 849-1957†.

2.3 Plywood — Plywood for seat, where used, shall conform to IS : 303-1975‡ and shall not be inferior to Type B.

2.4 Cane — Cane for seat, where provided, shall conform to IS : 5378-1969§.

2.5 Wood Screw — Wood screws for joinery work shall be of slotted countersunk head or round head and shall conform to IS : 6760-1972|| and IS : 6739-1972¶]. Bolts and nuts and other hardware shall conform to the relevant Indian Standards where exist.

2.6 Paint, enamel, and varnish shall conform to schedule given in IS : 2338 (Part 2)-1967** . Clear lacquer, melamine resin based paint or polyurethane paint may also be used.

3. DIMENSIONS

3.1 Dimension of chair shall conform to IS : 3663-1981††.

4. FABRICATION

4.1 Wooden Frame — Wooden frame shall be assembled from timber given in 2.1. The joinery work shall conform to IS : 3845-1966‡‡.

4.2 Seat and Backrest — The seat and backrest shall be padded, caned or fabricated out of moulded plywood or moulded wood.

5. FINISH

5.1 For finishing, the surfaces shall be lacquered, polished, varnished or painted. The method of application of finishes shall conform to IS : 2338 (Part 1)-1967§§. Clear lacquer melamine resin based paint or

*Specification for polyvinyl acetate dispersion-based adhesives for wood (*first revision*).

†Specification for cold setting casein glue for wood size.

‡Specification for plywood for general purpose (*second revision*).

§Specification for polythylene cane.

||Specification for slotted countersunk head wood screws.

¶]Specification for slotted round head wood screws.

**Code of practice for finishing of wood and wood-based materials: Part 2 Schedules.

††Dimensions of tables and chairs for general office purposes.

‡‡Code of practice for joints used in wooden furniture.

§§Code of practice for finishing of wood and wood-based materials: Part 1 Operations and workmanship.

polyurethane paint when used shall be applied as per manufacturer's instructions.

6. REQUIREMENTS

6.1 Wooden chairs when tested shall conform to the requirements specified in Table 1.

TABLE 1 REQUIREMENTS OF WOODEN CHAIRS

Sl No.	CHARACTERISTICS	REQUIREMENTS	METHOD OF TEST (REF TO RELEVANT INDIAN STANDARD)
i)	Dimensions	Effective depth of seat, seat slope, width of slope, width between armrests, height of armrests, slope of backrest, height of backrest and seat height shall conform to 3.4 of IS : 3663-1981*	IS : 3663-1981*
ii)	Physical tests:		
a)	Humidity variation tests	After test the chair shall not show any distortion loosening of materials, oxidation and other defects	IS : 5416-1969†
b)	Surface smoothness tests	By passing fingers lightly up and down on various wooden parts, there shall be no feeling of appreciable waviness or any fibre pricking into fingers. No projection of any dowel pins or nails at the joints shall be felt by fingers	IS : 5416-1969†
c)	General design tests	Chair should be consistent with the accepted design and shall appear to be symmetrical with reference to its central axis and there shall be no sharp edges causing inconvenience in the normal handling of a chair	IS : 5416-1969†
iii)	Mechanical tests	Chair when tested for dropping test, tipping backward test, diagonal loading and twisting test, seat impact test, rolling test and rocking test shall show no sign, damages as given in 7.1 of IS : 5416-1969*	IS : 5416-1969†

*Dimensions of tables and chairs for general office purposes (*first revision*).

†Methods of test for general purpose wooden chairs.

(*Continued*)

TABLE 1 REQUIREMENTS OF WOODEN CHAIRS — *Contd*

Sl. No.	CHARACTERISTICS	REQUIREMENTS	METHOD OF TEST (REF TO RELEVANT INDIAN STANDARD)
iv)	Finished surface tests		
a)	Resistance to dry heat	Minimum qualifying average ratings shall conform to 7 of IS : 5807 (Part 1)-1975*	IS : 5807 (Part 1)-1975*
b)	Resistance to wet heat	Minimum qualifying average ratings shall conform to 7 of IS : 5807 (Part 2)-1975†	IS : 5807 (Part 2)-1975†
c)	Resistance to marking by liquids	Minimum qualifying average ratings shall conform to 8 of IS : 5807 (Part 4)-1975‡	IS : 5807 (Part 4)-1975‡
d)	Resistance to mechanical damage	Test results shall conform to 5.3 of IS : 5807 (Part 6)-1978 when surface tested for impact, cross-cut and scrape test	IS : 5807 (Part 6)-1975§

*Method of test for clear finishes for wooden furniture : Part 1 Resistance to dry heat (*first revision*).

†Method of test for clear finishes for wooden furniture : Part 2 Resistance to wet heat (*first revision*).

‡Methods of test for clear finishes for wooden furniture : Part 4 Resistance to marking by liquids.

§Methods of test for clear finishes for wooden furniture : Part 6 Resistance to mechanical damages.

7. SAMPLING AND TESTING

7.1 Sampling — Samples shall be drawn at random from a lot in accordance with IS : 5416-1969*.

7.2 Testing — The tests shall be of three categories as follows.

7.2.1 Type Test — Test carried out to prove conformity to the requirements of specification. The following shall comprise the type tests:

- a) Workmanship,
- b) Dimensions and tolerances,
- c) Physical tests,
- d) Mechanical tests, and
- e) Finished surface tests.

7.2.2 Acceptance Tests — Tests carried out on sample selected from a lot for purpose of acceptance of the lot. The following shall comprise the acceptance tests.

- a) Workmanship,

*Methods of test for general purpose wooden chairs.

- b) Dimensions and tolerances,
- c) Physical tests, and
- d) Mechanical tests.

7.2.3 Routine Tests — Test carried out on each and every chair to check the requirements which are likely to vary during production. Each and every chair shall be checked for good workmanship and dimensions and tolerances.

8. PACKING

8.1 All wooden chair shall be packed according to usual trade practice.

9. INFORMATION TO BE SUPPLIED BY THE PURCHASER

9.1 The purchaser shall supply the following information to the supplier along with the order:

- a) Type and shape, and
- b) Colour and finish.

10. MARKING

10.1 All wooden chairs shall be marked with a suitable mark identifying the manufacturer.

10.1.1 All wooden chairs may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

IS : 11525 - 1986

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AMENDMENT NO. 1 JANUARY 1992
TO
IS 11525 : 1986 SPECIFICATION FOR WOODEN
CHAIRS FOR OFFICE PURPOSES

(*Page 4, clause 2.3*) — Insert the following new clause after 2.3 and re-number the subsequent clauses accordingly:

“2.4 Medium Density Fibre Board (MDF) — MDF for seat and back rest where used shall conform to IS 12406 : 1988 ‘Specification for medium density fibre boards for general purposes’ and shall be of Interior Grade IGSB if air drying finishes are adopted and Exterior Grade EGSB if oven drying finishes are adopted.”

(CED 35)

AMENDMENT NO. 2 JANUARY 1997
TO
IS 11525 : 1986 SPECIFICATION FOR WOODEN
CHAIRS FOR OFFICE PURPOSES

(Page 3, clause 0.2) — Insert the following new clause after 0.2:

0.3 A scheme of labelling environment friendly products to be known as ECO Mark is being introduced at the instance of the Ministry of Environment and Forests (MEF), 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 published in the Gazette of the Government of India. For a product to be eligible for ECO Mark, it shall also carry the Standard Mark of the BIS, besides meeting additional optional environment friendly requirements.'

(Page 3, clause 2.1) — Substitute the following for the existing clause:

2.1 Timber — Any species of timber specified in IS 13622 : 1993 'Indian timber for furnitures and cabinets — Classification' shall be used in the manufacture of wooden chairs.

2.1.1 For ECO Mark, only species of timber as specified in IS 13622 : 1993 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 for the manufacture of wooden chairs."

(Page 4, clause 2.3) — Substitute the following for the existing clause:

2.3 Plywood — Plywood used shall conform to IS 303 : 1989 'Specification for plywood for general purposes (*third revision*)'.

2.3.1 For ECO Mark the plywood shall conform to the requirements specified in IS 303 : 1989 for ECO Mark purposes."

(Page 4, clause 2.4, see also Amendment No. 1) — Insert the following at the end of the clause:

'For ECO Mark, the medium density fibreboard shall conform to the requirements specified in IS 12406 : 1988 for ECO Mark purposes.'

(Page 7, clause 9) — Insert the following new clause after 9 and renumber the subsequent clauses:

Amend No. 2 to IS 11525 : 1986

'10 ADDITIONAL REQUIREMENTS FOR ECO MARK

10.1 General Requirements

10.1.1 The product shall conform to the requirements of quality and performance as specified in the standard.

10.1.2 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* alongwith the authorization, if required under the *Environment (Protection) Act, 1986*, while applying for ECO Mark.

10.2 Specific Requirements

The product shall conform to the specific requirements given for ECO Mark under relevant clauses of this standard.

NOTE — The manufacturer shall provide documentary evidence by way of certificate or declaration to this effect to the Bureau of Indian Standards while applying for ECO Mark.'

(*Page 7, clause 10.1.1*) — Insert the following new clause after **10.1.1**:

10.2 The criteria for which the product has been labelled as ECO Mark.'