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Mazdoor Kisan Shakti Sangathan

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“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7259-1 (1988): wooden beds, Part 1: For use with mattresses [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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IS : 7259 (Part 1) - 1988
(Reaffirmed 2010)

Indian Standard
**SPECIFICATION FOR
WOODEN BEDS**

PART 1 FOR USE WITH MATTRESSES

(First Revision)

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AMENDMENT NO. 1 JANUARY 1992
TO
IS 7259 (Part 1) : 1988 SPECIFICATION FOR WOODEN
BEDS

PART 1 FOR USE WITH MATTRESSES

(First Revision)

(Page 2, *Clause 4.4*) — Insert the following new clause after 4.4 and renumber the subsequent clauses accordingly :

“4.5 **Medium Density Fibre Board (MDF)** — MDF where used in the manufacture of wooden beds shall conform to IS 12406 : 1988 ‘Specification for medium density fibre boards for general purposes’, shall be of Interior Grade IGSB if air drying finishes are adopted and Exterior Grade EGSB, if oven drying finishes are adopted.”

(Page 2, *clause 6.1.1, line 4*) — Insert ‘or MDF’ after the words ‘plywood panels’.

(CED 35)

AMENDMENT NO. 2 FEBRUARY 1997
TO
IS 7259 (PART 1) : 1988 SPECIFICATION FOR
WOODEN BEDS
PART 1 FOR USE WITH MATTRESSES

(First Revision)

(Page 1, clause 0.4) --- Insert the following new clause after 0.4 and renumber the subsequent clause :

'0.5 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 1, clause 4.1) --- Insert the following matter at the end of the clause:

'For ECO Mark, the particle board shall conform to the requirements specified in IS 3087 : 1985* for ECO Mark purposes.'

(Page 1, clause 4.2) --- Insert the following matter at the end of the clause:

'For ECO Mark, the veneered particle board shall conform to the requirements specified in IS 3097 : 1980† for ECO Mark purposes.'

(Page 2, clause 4.3) --- Insert the following matter at the end of the clause:

"For ECO Mark, the blockboard shall conform to the requirements specified in IS 1659 : 1990 'Specification for block boards (*third revision*)' for ECO Mark purposes."

(Page 2, clause 4.4) --- Substitute the following for the existing clause:

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

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

[Page 2, clause 4.5 (*see also Amendment No. 1*)] --- Insert the following at the end of the clause:

Amend No. 2 to IS 7259 (Part 1) : 1988

“For ECO Mark, the medium density fibreboard shall conform to the requirements specified in IS 12406 : 1988 ‘Specification for medium density fibreboards for general purposes’ for ECO Mark purposes.”

{ Page 2, clause 4.6 (see also Amendment No.1) } — Substitute the following for the existing clause:

“4.6 **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 beds.

4.6.1 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 beds.”

(Page 3, clause 9)— Insert the following new clauses after 9 and renumber the subsequent clauses:

‘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 4, clause 11 .1.1) — Insert the following new clause after 11.1.1:

‘11.2 The criteria for which the product has been labelled as ECO Mark.’

(CED 35)

Indian Standard

SPECIFICATION FOR WOODEN BEDS

PART 1 FOR USE WITH MATTRESSES

(*First Revision*)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards on 12 October 1988, after the draft finalized by the Furniture Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Since scientists have calculated that we spend one third of our lives asleep, it seems logical to pay a fair amount of attention to the apparatus for sleeping, particularly wooden beds, and formulate such standards correlating the materials available, standard sizes of mattresses and bed covers based on the recommendation for dimensions of spaces for human activities and related comforts (*see* IS : 5533-1969*).

0.3 Plywood and blockboard are common wood based panels used extensively for the last four decades for furniture in India. With the development of unvenereed and veneered particle board, and its manufacture by various factories in India on most modern automatic machines has led to a uniform quality and close tolerances in dimensions, strength and other properties which are essential for mass production of household furniture. Manufacture of wooden furni-

ture is developing fast using these wood panel products. However, the sizes, designs and finish of the furniture items made by various manufacturers differ considerably. This standard has been prepared with a view to rationalizing the sizes, the types, the functional requirements and finishes in the interest of the manufacturers and the users. This standard was first published in 1974. In this revision, performance requirements of finish have been included. The dimensions of beds have also been modified. The revised standard also makes reference to the recent Indian Standards for various types of materials allowed in the standard.

0.4 This standard contains clause 12 which requires the purchaser to supply certain technical information at the time of placing order.

0.5 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, 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.

*Recommendation for dimensions of spaces for human activities.

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

1. SCOPE

1.1 This standard (Part 1) covers requirements for materials, sizes, construction and finish of residential type wooden beds for use with mattresses for adults excluding rural cots, hospital beds, sofa-cum-beds and folding beds.

2. TERMINOLOGY

2.1 For the purpose of this standard, definitions given in IS : 4415-1967* shall apply.

3. TYPES

3.1 Wooden beds for household use shall be of the following two types:

- a) Single-bed, and
- b) Double-bed.

*Glossary of terms for wooden furniture.

4. MATERIALS

4.1 Particle Board — Unvenereed particle board required for the manufacture of wooden beds shall conform to IS : 3087-1985* and shall be of flat-pressed single-layer or flat-pressed 3-layer type. Wood particle board used for wooden beds, required to be finished with baking paints or enamel finishes shall be manufactured with only BWR type of adhesives, such as, phenol formaldehyde synthetic resins.

4.2 Veneered Particle Board — Veneered particle board shall conform to IS : 3097-1980†. Both interior and exterior grades of veneered particle

*Specification for wood particle boards (medium density) for general purposes (*first revision*).

†Specification for veneered particle boards (*first revision*).

board can be used where the beds are to be finished with air-drying paints or varnishes. Where suitable baking paints, enamels or varnishes are to be used, only exterior grade veneered particle board shall be used. Veneered particle board for wooden beds for Class 1 and Class 2 type decorative shall be with decorative teak or other decorative timber veneered surface.

4.3 Blockboard — Blockboards used in the manufacture of wooden beds shall conform to IS : 1659-1979* and shall be of Grade 1 or 2 where air-drying finishes are adopted and Grade 1 only where suitable open-drying finishes are adopted in the manufacture of beds.

4.4 Plywood — Plywood used in the manufacture of wooden beds shall conform to IS : 303-1975†.

4.5 Solid Wood Components — Any of the species of timber recommended for furniture and cabinet making in IS : 399-1963‡ shall be used in the manufacture of beds. The wood used shall be seasoned timber with moisture content as permissible for different climatic zones in IS : 287-1973§. The specification of wood shall conform to IS : 1331-1977||. Preservative treatment as specified in IS : 401-1982¶ shall be given to the concealed components of non-durable wood and sapwood of durable timber.

4.6 Decorative Plastic Laminates — Decorative plastic laminates used shall conform to IS : 2046-1969** and shall be of the design and finish as prescribed by the purchaser.

4.7 Adhesive — Adhesive used for joinery work shall conform to IS : 848-1957†† or IS : 849-1957‡‡.

4.8 Wood Screws — Wood screws shall conform to IS : 451-1961§§ and IS : 1365-1968¶¶. Bolts and nuts and other hardware shall conform to the relevant Indian Standards wherever they exist.

4.9 Paints, enamles, polish and varnish shall conform to the relevant Indian Standards, wherever they exist, for air-drying as well as stoving finishes.

*Specification for blockboards (first revision).

†Specification for plywood for general purpose (second revision).

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

§Recommendations for maximum permissible moisture content of timber used for different purposes (second revision).

||Specification for cut size timbers (second revision).

¶Code of practice for preservation of timber (third revision).

**Specification for decorative thermosetting synthetic resin bonded laminated sheets (first revision).

††Specification for synthetic resin adhesives for plywood (phenolic and aminoplastic).

‡‡Specification for cold setting casein glue for wood.

§§Specification for wood screws (first revision).

¶¶Specification for slotted countersunk head and slotted raised countersunk head screws (dia range 1.6 to 20 mm (second revision).

5. DIMENSIONS AND TOLERANCES

5.1 The overall dimensions of the single and double bed shall be as follows (see Fig. 1) :

Single Bed Double Bed

a) Height, from floor to the top of the mattress, Max	450 mm	450 mm
b) Clear in-bed length between head boards and the foot boards	1 900 to 2 000 mm	1 900 to 2 000 mm
c) Width	910 mm	1 525 and 1 830 mm

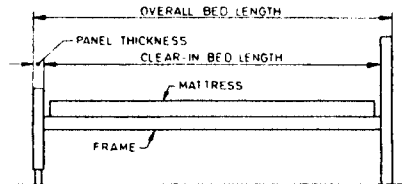


FIG. 1 TYPICAL SKETCH OF A WOODEN BED

5.2 Tolerances — The overall dimensions specified in 5.1 shall not vary by more than ± 10 mm.

5.3 The wooden bed shall be rectangular at all the measurable surfaces within a tolerance of ± 5 mm between the two diagonals of the rectangle.

6. FABRICATION

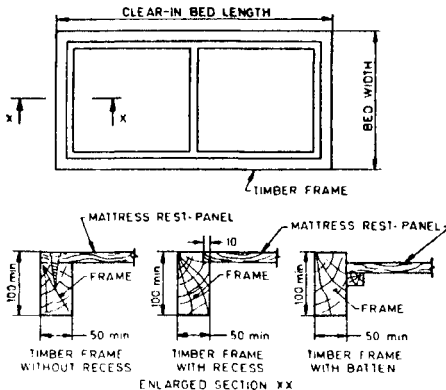
6.1 Components — Wooden beds shall be first made in the component forms and then assembled from the components as given in 6.1.1 to 6.1.3.

6.1.1 Head and Foot Boards — The head and foot boards shall be made from wood particle board or veneered particle board or blockboard or plywood panels as specified in 4 and shall be in thickness of 20 mm or 25 ± 1 mm. In case of unveneered and veneered particle boards and blockboards, teakwood or other durable hard wood lipping of not less than 10 mm width shall be provided by gluing in at the time of veneering. If agreed by the customers, unplipped head and foot boards of blockboard, unveneered and veneered particle boards shall be supplied but the edges should be sealed with good wood putty or filler. For beading PVC, plywood or veneer strips shall be used with suitable adhesive for joining.

6.1.2 Mattresses Rest Panel — Bed tops shall be made from, plywood as specified in 4 and shall be of thickness 8 mm for single beds and 12 mm for double beds. The mattress rest-panel shall be fixed on the frame, or alternatively cut 10 mm short all round in case this is to be fixed into a recess prepared in the timber frame.

NOTE — Minimum five supports should be fixed with screws at the bottom of the rest panel otherwise the thickness of rest panel should be increased to 12 mm.

6.1.3 Frame — The frame made from wood according to the 4.5 shall consist of 2 side rails and 2 ends rails joined by tenon and mortice joint. Half lap joint shall be rectangular in shape. The rails shall be of section 100×50 mm for single beds and 150×50 mm for double beds, and the frame shall be of length and width to cover the inner dimensions of the top. The frame may have a recess cut on the top inner-side to the depth of mattress rest panel and minimum 10 mm wide in case the bed top panel is to be screwed into the recess prepared in the timber frame (see Fig. 2).



All dimensions in millimetres.
**FIG. 2 ALTERNATIVE METHODS OF FIXING
 MATTRESS REST PANEL WITH FRAME**

6.1.4 Legs — The legs shall be made of solid wood as referred in 4.5 and shall be round or square in shape. It shall be joined to the head and foot boards with lap joint after applying glue and fixed rigidly with screws or bolts and nuts.

7. ASSEMBLY

7.1 The various components shall be assembled by means of bed fittings, bolts and nuts or screws, securely fixed under pressure. Before driving screws, pilot holes should be driven into the wood panels and the screws should be dipped in glue before driving in the head and foot boards as specified in 6.1.1. The joinery details at various locations of bed shall conform to IS : 3845-1966*.

8. FINISH

8.1 For finishing, the surfaces shall be waxed, French polished, varnished or painted. The method of application of finishes shall conform to IS : 2338 (Part 1)-1968† and IS : 2338

*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.

(Part 2)-1968*. Clear lacquer melanine resin based paint or polyurethane paint, when used, shall be applied according to the manufacturer's instructions.

9. PERFORMANCE REQUIREMENTS OF FINISH

9.1 Every bed shall be checked for good workmanship and shall be free from any stain and warp.

9.2 Resistance to Dry Heat — The test sample surface shall be tested for resistance to dry heat in accordance with IS : 5807 (Part 1)-1975‡. The minimum qualifying average ratings shall conform to 7 of IS : 5807 (Part 1)-1975‡.

9.3 Resistance to Wet Heat — The test sample surface shall be tested for resistance to wet heat in accordance with IS : 5807 (Part 2)-1975‡. The minimum qualifying average ratings shall conform to 7 of IS : 5807 (Part 2)-1975‡.

9.4 Resistance to Marking by Oils and Fats — The test sample surface shall be tested for resistance to marking by oils and fats in accordance with IS : 5807 (Part 3)-1971§. The test result should conform to 5 and 6 of IS : 5807 (Part 3)-1971§.

9.5 Resistance to Marking by Liquids — The test sample surface shall be tested for resistance to marking by liquid in accordance with IS : 5807 (Part 4)-1975||. The minimum qualifying average ratings shall conform to 8 of IS : 5807 (Part 4)-1975||.

9.6 Resistance to Mechanical Damage — The test sample surface shall be tested for resistance to impact, cross-cut and scrape tests in accordance with IS : 5807 (Part 6)-1978¶. The rating shall conform to 5.3 of IS : 5807 (Part 6)-1978¶.

10. PACKING

10.1 All the component parts shall be packed after wrapping with water-proof material in such a way that no damage is caused to them during transit.

10.2 The purchaser may require the wooden beds to be supplied in knocked down condition, in which case, manufacturers shall prepare the components fully for quick joining and shall supply the purchaser complete illustrated details and instructions for assembly and pack the components in wooden crates after wrapping with water-proof packing material.

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

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

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

§Methods of test for clear finishes for wooden furniture: Part 3 Resistance to marking by oils and fats.

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

¶Method of test for clear finishes for wooden furniture: Part 6 Resistance to mechanical damage.

11. MARKING

11.1 All wooden beds shall be marked with the name of the manufacturer or his recognized trade-mark identifying the manufacturer.

11.1.1 The beds may also be marked with the Standard Mark.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act 1986 and Rules and Regulations made thereunder. The Standard 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 BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of condi-

tions 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.

12. INFORMATION TO BE SUPPLIED BY THE PURCHASER

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

- a) For non-teak bed, the species of timber shall be specified;
- b) Type and size of bed;
- c) Finish required, colour thereof and any optional fixtures; and
- d) Where alternative methods of construction or finish are specified, the same shall be clearly stated in the order.

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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 Handbook' and 'Standards Monthly Additions'.

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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