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मानक

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IS 13489 (2000): Textiles - Bed Mattress [TXD 20: Made-up Textiles]



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IS 13489 : 2000
(Reaffirmed - 2012)

भारतीय मानक
वस्त्रादि — बिस्तरों के गद्दे — विशिष्टि
(पहला पुनरीक्षण)

Indian Standard

TEXTILES — BED MATTRESS — SPECIFICATION
(*First Revision*)

ICS 97.140

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

August 2000

Price Group 2

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Made-up Textiles (Other Than Ready-made Garments) Sectional Committee had been approved by the Textile Division Council.

Bed mattresses made from rubberized coir, latex foam and flexible polyurethane foam or combination of these materials are becoming increasingly popular.

This standard was originally published in 1992 has been revised to include two types of bed mattresses. Type 1 bed mattress is mainly used by defence services and is based on JSS 7210-4:1992 Mattress officers MKI issued by Directorate of Standardization, Ministry of Defence. Type 2 mattresses are meant for general domestic use.

There is no International Standard on the subject.

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

TEXTILES — BED MATTRESS — SPECIFICATION

(First Revision)

1 SCOPE

This standard covers two types of bed mattresses made from rubberized coir, flexible polyurethane or latex foam sheets or a combination of these materials.

2 REFERENCES

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

3 TYPES

Bed mattress shall be of the following types :

Type 1 — Bed mattress made from medium grade rubberized coir sheet as cushioning material, mainly used by defence services, paramilitary organizations, police, railways, public works departments, etc.

Type 2 — Bed mattress made from rubberized coir, flexible polyurethane or latex foam sheet either singly or in combination, as cushioning materials.

4 MATERIALS

The materials given in Table 1 shall be used for manufacturing components of bed mattress.

5 DIMENSIONS

5.1 Type 1 Mattress

The principal dimensions of the finished mattress when measured to nearest 5 mm shall be as follows (see Fig. 1):

Length, mm $2\ 000 \pm 15$

Width, mm 910 ± 15

Thickness, mm 50 ± 05

5.2 Type 2 Mattress

The principal dimensions of the finished mattress shall be as specified in the contract or order, subject to the following tolerance when measured to nearest 5 mm

Length, mm $\pm 15\ \text{mm}$

Width, mm $\pm 15\ \text{mm}$

Thickness, mm $\pm 05\ \text{mm}$

NOTE — In case more than one material is used for cushioning, thickness of the finished mattress shall conform to the requirements given above and the order of layering of cushion materials shall also be indicated.

6 MANUFACTURE

6.1 The top and bottom pieces of the mattress case shall be made from a single piece of fabric. One joint parallel to the length may, however, be permitted both in the top and bottom of the case but no piece less than 18 cm in width shall be used. The sides, shall also be made from the same fabric which shall have a maximum of four joints. However, no lateral joint of any cushioning material shall be allowed parallel to length/width. The mattress case shall be plain or quilted with single layer of foam.

Table 1 Materials for Components of Mattress
(Clause 4)

SI No.	Component	Material
i)	Case	a) Cotton bed ticking conforming to IS 175, or b) Any suitable fabric as specified in the contract/order
ii)	Cushioning	a) Rubberized coir sheet conforming to IS 8391 b) Latex foam sheet conforming to IS 1741 c) Flexible polyurethane foam sheet conforming to IS 7933
iii)	Piping	Hemp line, 04 mm, or (see IS 1920) Shroud-laid, cotton line 04 mm (see IS 3252)
iv)	Tying tapes	Cotton Newar, 13 mm, wide (see IS 1895)
v)	Sewing thread	Cotton sewing thread of (see IS 1720) 165 d tex \times 6 (36s/6) white

6.2 The piping shall be made by encasing a 4 mm hemp line or shroud-laid cotton line in a 50 mm wide strip of fabric used for case. The top portion of the piping and the side border shall be stitched together by one row of machine stitching. The stitching shall be at least 5 mm away from the raw edges. Similarly, the bottom portion of the piping and the border (sides) shall also be machine stitched.

6.3 The mattress shall be assembled throughout with lock stitch regulated at 37 to 43 stitches per decimetre. All loose ends shall be securely fastened.

6.4 One of the ends shall however be unstitched and kept open for insertion of cushioning material. For Type 1, the free edge of the bottom and the piping shall be stitched with the lower edge of the border to which a flap of 18 cm width has been stitched. Four pairs of 13 mm tying tapes shall be stitched, as indicated in Fig. 1, one tape each to the free edge of the bottom and the other to the lower edge of the border. The other side of the flap shall be hemmed 10 mm wide with one row of stitching. The sheet of cushioning material shall be inserted into the case through the open end. The open end shall be closed by the flap and secured by tying tapes.

For Type 2 mattress, after inserting the cushioning material, the free edge of the bottom and the piping shall be stitched with the lower edge of the border after hemming it to 10 mm with single row of stitching.

6.5 If a sealed sample is stipulated in the contract/order, the mattress shall conform to the same in respect of workmanship, finish, etc.

7 MARKING

7.1 Each mattress shall be marked with the following:

- a) Name of manufacturer,
- b) Type,
- c) Dimensions,
- d) Type of cushioning material used, and

NOTE — In case more than one material is used for cushioning, thickness and grade of each shall be indicated separately.

- e) Other information stipulated in the contract/order.

7.2 BIS Certification Marking

The bed mattresses may also be marked with Standard Mark.

7.2.1 The use of Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and Rules and Regulations made thereunder. The details of the 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.

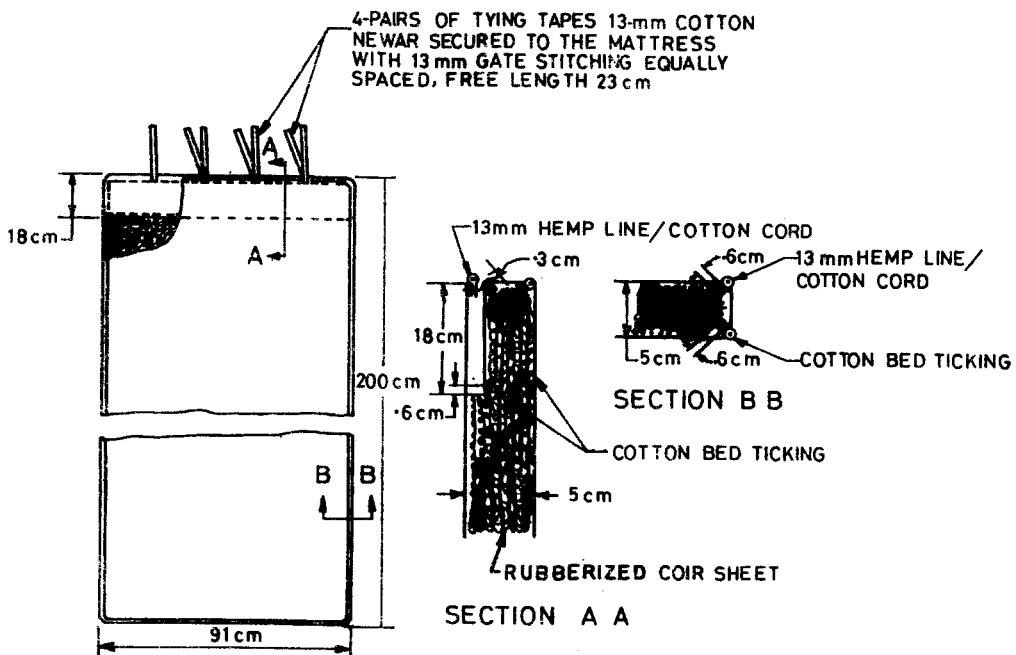


FIG. 1 BED MATTRESS

8 PACKING

8.1 Type 1 mattress shall be packed as detailed in 8.1.1 to 8.1.3 when so specified in the contract or order:

8.1.1 Materials

- | | |
|--|--|
| a) Polythene film, 0.04 mm thick | (see IS 2508) |
| b) Cloth heavy cee
or
Cloth hessian (Medium),
305g/m ² | (see IS 3751)
[see IS 2818
(Part 2)] |
| c) Twine jute, 3-ply
or
String cord | (see IS 1912)
As specified in
contract/order |

8.1.2 Method

One mattress shall be wrapped with an inner layer of polythene film 0.04 mm thick (*Min*) and an outer layer of cloth heavy cee or equivalent hessian cloth to form a compact bale of rectangular shape as far as possible. The overlap of the inner wrapping shall be at least 10 cm so as to ensure full protection to the contents of the bale. The overlap of the outer layer of the hessian cloth shall be such that it can be properly and securely sewn around the bale. The bale shall be stitched with double 3-ply-jute twine, with not less than 12 stitches per decimetre taking care not to pierce the inner wrapping while

stitching. Sufficient hessian cloth shall be provided at each corner to form 'ears' of about 15 cm in length to facilitate easy handling during transit.

8.1.3 Each bale shall be legibly marked by stencil with indelible marking ink/paint showing the following details:

- a) Manufacturer's name and address,
- b) Name and type,
- c) Quantity packed in the bale,
- d) Lot number and serial number of the bale,
- e) Month and year of packing,
- f) Gross mass of the bale in kg,
- g) Name and address of consignee, and
- h) Any other information required by the buyer.

8.2 Type 2 mattresses may be supplied loose or packed in a manner as specified in the contract or order.

9 SAMPLING, INSPECTION AND TESTING

The procedure for sampling, inspection and testing shall be as stipulated in the contract/order or as agreed to between the buyer and the seller. Assistance for developing sampling plan may be drawn from IS 2500 (Parts 1, 2 and 3).

ANNEX A

(Clause 2)

LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
175 : 1989	Specification for sheeting ticking and bed sheets (<i>third revision</i>)	Part 3 (1995)	Sampling plans indexed by limited quality level for isolated lot inspection.
1720 : 1978	Specification for cotton sewing thread (<i>second revision</i>)	2508 : 1984	Low density polythene films
1741 : 1960	Specification for latex foam rubber products	2818 (Part 2) : 1971	Indian hessian : Part 2 305 and 229 g/m ² at 16 percent contract regain (<i>first revision</i>)
1895 : 1982	Specification for cotton <i>NEWAR</i> (<i>second revision</i>)	3252 : 1987	Specification for shroud-laid cotton line (<i>second revision</i>)
1920 : 1987	Specification for hemp lines (<i>second revision</i>)	3751 : 1993	Heavy cee jute cloth — Specification (<i>first revision</i>)
1912 : 1984	Country jute twine (<i>second revision</i>)	7933 : 1975	Specification for flexible polyurethane foam for domestic mattresses
2500	Sampling inspection procedures :	8391 : 1987	Specification for rubberized coir sheet for cushioning (<i>first revision</i>)
Part 1 (1992)	Attribute sampling plans indexed by acceptable quality level (AQL) for lot by lot inspection (<i>second revision</i>)		
Part 2 (1965)	Inspection by variables for percent defective		

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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 Catalogue' and 'Standards: Monthly Additions'.

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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