
वस्त्रादि — स्वचालित और अंडरपिक करघों
के लिए पिकिंग स्टिक्स — विशिष्टि

(दूसरा पुनरीक्षण)

**Textiles — Picking Sticks for
Automatic and Underpick
Looms — Specification**

(Second Revision)

ICS 59.120.30

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FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Textile Machinery and Accessories Sectional Committee had been approved by the Textiles Division Council.

Picking stick is the part of a loom that transmits motion to the shuttle by means of the picker. It is a wooden stick used to carry the picker.

This standard was originally published in 1968. This standard was revised in 1976. The standard has been revised to incorporate the following changes:

- a) All amendments have been incorporated;
- b) References to Indian Standards have been updated;
- c) Sampling clause has been modified; and
- d) Marking clause has been modified.

Since the dimensions and shape of picking sticks vary to a great extent depending upon the make of loom, this standard does not prescribe the dimensional requirements of picking sticks and, as such, permissible tolerances on various dimensions have been prescribed in this standard.

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

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 : 2022 'Rules for rounding off numerical values (*second revision*)'. 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 — PICKING STICKS FOR AUTOMATIC AND UNDERPICK LOOMS — SPECIFICATION***(Second Revision)***1 SCOPE**

This standard prescribes requirements of picking sticks for use on automatic cotton looms and underpick cotton, woollen and worsted looms.

2 REFERENCES

The standards given below contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards:

<i>IS No.</i>	<i>Title</i>
IS 3513 (Part 3) : 1989	Resin treated compressed wood laminates (compregs) — Specification: Part 3 For general purposes (<i>first revision</i>)

3 MANUFACTURE**3.1 Material**

3.1.1 The picking sticks shall be manufactured from compreg conforming to Type V of IS 3513 (Part 3).

3.1.2 The species of timber given in Annex A to the standard shall be used for the manufacture of veneers required for making compreg.

3.2 Finish

The picking sticks should have a smooth finish and may be given a coat of varnish if prescribed by the buyer.

3.3 Freedom from Defects

The picking sticks shall be free from checks, splits, blisters, overlaps, gaps and open joints or any other defect which is likely to affect the life or usefulness of the picking sticks.

4 REQUIREMENTS**4.1 Dimensions**

The dimensions and shape of picking sticks shall be

as prescribed by the buyer depending upon the make of the loom. Two typical sketches of picking sticks are shown in Fig. 1. The tolerances on various dimensions shall, however, be as follows:

<i>Sl No.</i>	<i>Dimensions</i>	<i>Tolerance mm</i>
(1)	(2)	(3)
i)	Overall length	± 3
ii)	Thickness and width	± 0.5
iii)	Height of the first hole from the bottom end	± 1
iv)	Diameter of holes	+ 0 - 0.5
v)	Distance between pair of holes	± 1

4.1.1 Warping

Warping to an extent of 1 mm per metre shall be permitted.

4.2 Mass

The mass of a picking stick shall be as agreed to between the buyer and the seller subject to a tolerance of ± 3 percent.

5 SAMPLING

5.1 All the picking sticks of one type and size and manufactured from the same raw material delivered to a buyer against a despatch note shall constitute a lot.

5.2 The conformity of the lot to the requirements of this standard shall be determined on the basis of the tests carried out on the samples selected from it.

5.3 Unless otherwise agreed to between the buyer and the seller, the number of picking sticks to be selected at random from a lot shall be in accordance with col (2), col (3) and col (5) of Table 1.

Table 1 Sample Size and Criterion for Conformity*(Clause 5.3)*

Sl No.	Lot Size	No. of Picking Sticks to be Selected for Testing Dimensions	Permissible No. of Non-conforming Picking Sticks Amongst those Selected in Col (3)	No. of Picking Sticks to be Selected for Determining Mass from Amongst those Selected in Col (3)
(1)	(2)	(3)	(4)	(5)
i)	Up to 150	8	1	3
ii)	151 to 280	13	1	3
iii)	281 to 500	20	2	3
iv)	501 and above	32	3	5

5.4 The number of picking sticks to be tested and criterion for conformity for each of the characteristics shall be as follows:

Sl No.	Characteristic	No. of Picking Sticks to be Tested	Criterion for Conformity
(1)	(2)	(3)	(4)
i)	Dimensions	According to col (3) of Table 1	Non-conforming sticks not to exceed the corresponding number given in col (4) of Table 1
ii)	Mass and all other requirements	According to col (5) of Table 1	Each observed value satisfies the requirements (<i>see 4.2</i>)

6 MARKING

6.1 Each picking stick shall be marked at a suitable place with the manufacturer's name, initials or trade-mark, if any.

6.1.1 Each picking stick shall also be legibly marked with the following information:

- Indication of the source of manufacture;
- Gross and net mass;
- Lot/batch number;
- Country of origin; and
- Any other information required by the law in force and/or by the buyer.

6.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity

assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

7 PACKING

7.1 A suitable number of picking sticks of one type shall be made into a bundle by tying at three places with twine. The number of picking sticks in a bundle shall be as agreed to between the buyer and the seller. Each bundle shall be packed in hessian.

7.2 Each bundle shall be marked with the following:

- Manufacturer's name, initials or trade-mark, if any;
- Number of picking sticks in the bundle; and
- Type of loom on which the picking sticks are to be used.

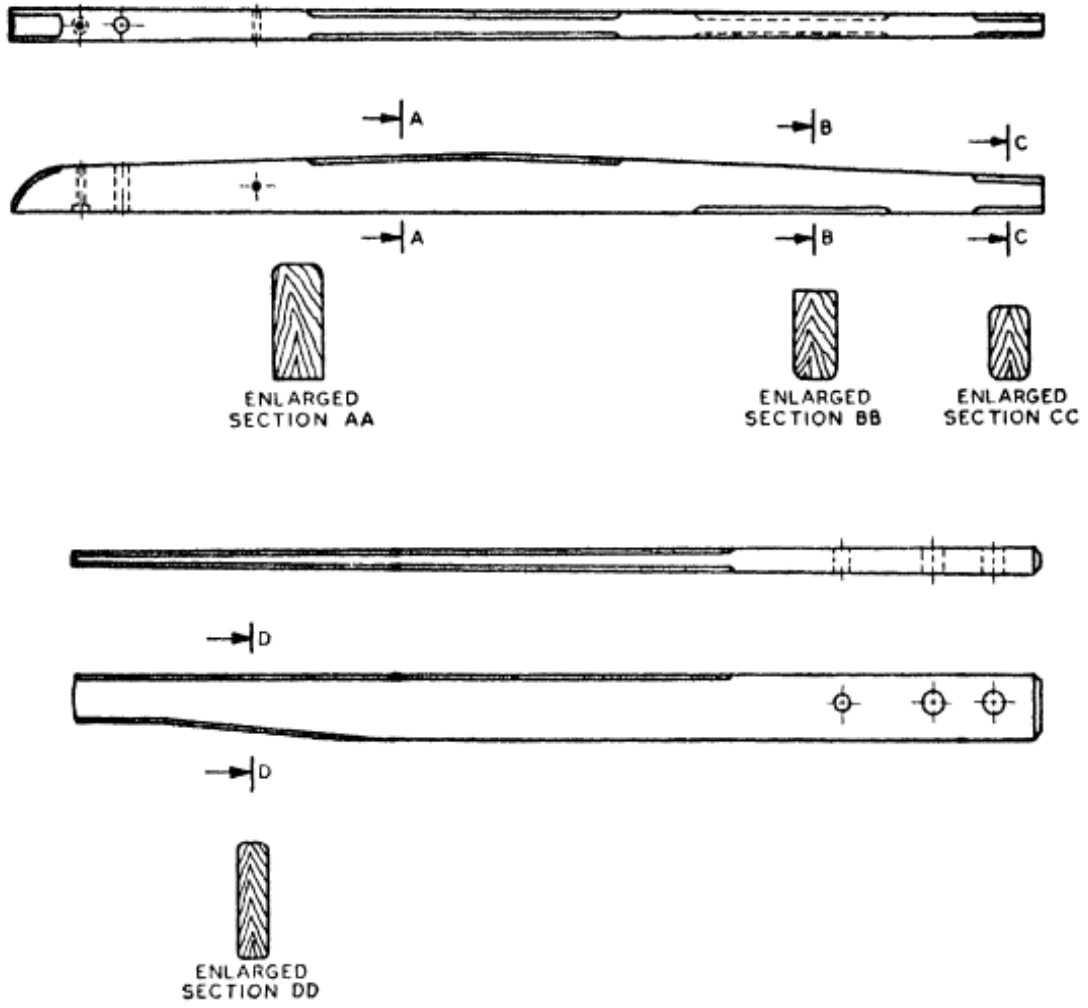


FIG. 1 TYPICAL PICKING STICKS

ANNEX A

(Clause 3.1.2)

SPECIES OF TIMBER TO BE USED FOR MANUFACTURE OF VENEERS REQUIRED FOR MAKING COMPREG

<i>Trade Name</i>	<i>Botanical Name</i>	<i>Trade Name</i>	<i>Botanical Name</i>
Aini	<i>Artocarpus hirsutus</i>	Laurel	<i>Terminalia alata</i>
Amari	<i>Amoora</i> spp.	Maple	<i>Acer</i> spp.
Arjun	<i>Terminalia arjuna</i>	Machilus	<i>Machilus</i> spp.
Bahera	<i>Terminalia bellirica</i>	Makai	<i>Shorea assamica</i>
Carallia	<i>Carallia brachiata</i>	Mango	<i>Mangifera</i> spp.
Chaplash	<i>Artocarpus chaplasha</i>	Mullilam	<i>Zanthoxylum rhetsa</i>
Chickrassy	<i>Chukrasia velutina</i>	Mundani	<i>Acrocarpus fraxinifolius</i>
Chilauni	<i>Schima wallichii</i>	Narikel	<i>Pterygota alata</i>
Debdaru	<i>Polyalthia</i> spp.	Nedunari	<i>Mansonia</i> spp.
Dilienia	<i>Dillenia</i> spp.	Pali	<i>Palaquium ellipticum</i>
Gondsoroi	<i>Cinnaniomum cecicodaphne</i>	Piney	<i>Kingiodendron pinnatum</i>
Gurjan	<i>Dipterocarpus</i> spp.	Pitraj	<i>Aphanamixis polystachya</i>
Hathipaila	<i>Pterospermum acerifolium</i>	Poon	<i>Calophyllum</i> spp.
Hollock	<i>Terminalia myriocarpa</i>	Pussur	<i>Xylocarpus</i> spp.
Hollong	<i>Dipterocarpus macrocarpus</i>	Pymma	<i>Lagerstroemia hypoleuca</i>
Jaman	<i>Syzygium</i> spp.	Red Bombwe	<i>Planchonia valida</i>
Jutili	<i>Altingia excelsa</i>	Salai	<i>Boswellia serrata</i>
Kanju	<i>Holoptelea integrifolia</i>	Satinwood	<i>Chloroxylon swietenia</i>
Karani	<i>Cullenia rosayroana</i>	Silver Oak	<i>Grevillea robusta</i>
Kathal	<i>Artocarpus heterophyllus</i>	Toon	<i>Toona cilata</i>
Kendu	<i>Diespyros</i> spp.	Uriam	<i>Bischofia javanica</i>
Kindal	<i>Terminalia paniculata</i>	Vellapine	<i>Vateria indica</i>
Kokko	<i>Albizia lebbek</i>	White Bombwe	<i>Terminalia procera</i>
		White Ghuglam	<i>Terminalia bialata</i> (Sapwood)'

ANNEX B*(Foreword)***COMMITTEE COMPOSITION**

Textile Machinery and Accessories Sectional Committee, TXD 14

<i>Organization</i>	<i>Representative(s)</i>
Central Manufacturing Technology Institute, Bengaluru	DR NAGAHANUMAIAN (<i>Chairperson</i>)
Amritlakshmi Machine Works, Mumbai	SHRI N. K. BRAHMACHARI SHRI N. K. RAUT (<i>Alternate</i>)
ATE Enterprises Private Limited, New Delhi	SHRI ABHIJIT KULKARNI SHRI ANIL KUMAR SHARMA (<i>Alternate</i>)
Bajaj Industries Private Limited, Kolkata	REPRESENTATIVE
Bhowmick Calculator, Kolkata	SHRI GOUTAM BHOWMICK SHRI VIVEKANANDA BHOWMICK (<i>Alternate</i>)
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ICAR-Central Institute for Research on Cotton Technology, Mumbai	DR N. SHANMUGAM DR T. SENTHILKUMAR (<i>Alternate</i>)
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Indian Jute Mills Association, Kolkata	REPRESENTATIVE
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Lakshmi Machine Works Limited, Coimbatore	MS KALPANA A. MS DIVYA V. (<i>Alternate</i>)
Laxmi Shuttleless Looms Private Limited, Ahmedabad	SHRI KETAN SANGHVI
Ludlow Jute Limited, Kolkata	REPRESENTATIVE

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<i>Organization</i>	<i>Representative(s)</i>
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National Safety Council, Navi Mumbai	SHRI LALIT R. GABHANE SHRI R. R. DEOGHARE (<i>Alternate</i>)
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Peass Industrial Engineers Private Limited, Navari	SHRI RAVI S. RAO SHRI JIGNESH B. PATEL (<i>Alternate</i>)
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Textile Machinery Manufacturers Association, Mumbai	SHRI M. SHANKAR SHRI PRASHANT MANGUKIA (<i>Alternate</i>)
The Bombay Textile Research Association, Mumbai	SHRI VIJAY GAWDE SHRI R. A. SHAIKH (<i>Alternate</i>)
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Member Secretary
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