भारतीय मानक Indian Standard

IS 1896 : 2023

वस्त्रादि —ओवरपिक कपास करघों के लिए पिकिंग स्टिक्स —विशिष्टि

(तीसरा पुनरीक्षण)

Textile — Picking Sticks for Overpick Cotton Looms — Specification

(Third Revision)

ICS 59.120.30

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FOREWORD

This Indian Standard (Third 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.

In over picking cotton loom, a picking tappet, driven by the bottom shaft and carrying a nose bit, hits a cone, which in turn drives a vertical shaft. The motion is transmitted to the shuttle through a picking stick and picker.

This standard was originally published in 1961 and subsequently revised in 1970 and 1987. This revision has been made in the light of experience gained since its publication and to incorporate the following major changes:

- a) Title of the standard has been modified;
- b) Marking and packing clauses have been modified; and
- c) References to Indian standards have been updated.

The composition of the committee responsible for the formulation of this standard is listed in Annex A.

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 OVERPICK COTTON LOOMS — SPECIFICATION

(Third Revision)

1 SCOPE

This standard specifies the requirements of picking sticks for use on overpick cotton looms.

2 REFERENCES

The standards listed below contain provisions which, through reference in this text, constitute provisions 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 listed below.

IS No.	Title
IS 196 : 1966	Atmospheric conditions for testing (revised)
IS 707 : 2011	Glossary of terms applicable to timber technology and utilization
IS 1141 : 1993	Seasoning of timber — Code of practice (second revision)
IS 1708 (Part 2): 1986	Methods of testing of small clear specimens of timber: Part 2 Determination of specific gravity (second revision)
IS 1998 : 1962	Methods of test for thermosetting synthetic resin bonded laminated sheets

3 TYPES AND MATERIAL

3.1 Type I

The picking sticks manufactured from fully-seasoned timber (*see* IS 1141) of any of the species listed below shall be designated as Type I:

Trade Name	Botanical Name
Axlewood	Anogeissus laliflia
Babul	Acacia nilotica
Dhaman	Crewia tifiijbfia
Sandan	Ougeinia oojincnsir

3.2 Type II

The picking sticks made of medium density wood-based laminates (compreg) shall be designated as Type II.

3.2.1 The compreg used for manufacture of picking sticks shall conform to the following requirements:

Sl	Test	Requirement	Method
No.			of Test
(1)	(2)	(3)	(4)
i)	Specific gravity,	0.96 <i>Min</i>	IS 1708
	g/cm ³	1.25 <i>Max</i>	(Part 2)
ii)	Impact strength, <i>Min</i> (kg.cm):		IS 1998
	a) Perpendicular to laminae	118	
	b) Parallel to laminae	110	

4 ATMOSPHERIC CONDITIONS FOR CONDITIONING AND TESTING

In case of dispute or if agreed to between the buyer and the seller, the test samples shall be conditioned to moisture equilibrium and tested in standard atmospheric conditions, that is, (65 ± 2) percent relative humidity at (27 ± 2) °C temperature (*see* also IS 196).

5 WORKMANSHIP AND FINISH

5.1 Slope of Grain

The timber used in the manufacture of Type I picking sticks shall be straight-grained. However, a slope of grain not exceeding 1 in 18 shall be permitted.

5.2 Freedom from Defects

The picking sticks shall be free from visible defects, such as checks, splits, gum veins, bark pockets, holes or any other defect which is likely to affect the life or usefulness of the picking sticks (for the description of defects, *see* IS 707).

5.3 The picking sticks shall have smooth finish. Type II picking sticks shall be given a coat of varnish, if prescribed by the buyer.

6 REQUIREMENTS

6.1 Shape and Dimensions

The shape and dimensions of picking sticks shall be as shown in Fig. 1. The dimensions of picking sticks for special type of looms shall be as agreed to between the buyer and the seller.

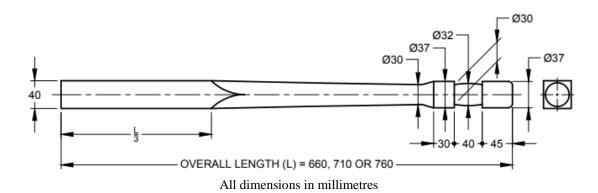


FIG. 1 A TYPICAL PICKING STICK FOR OVERPICK COTTON LOOM

6.1.1 Tolerances

Overall length $\pm 3 \text{ mm}$ Other linear dimensions $\pm 1 \text{ mm}$ Diametrical dimensions $\pm 1 \text{ mm}$

6.2 Mass

The mass of picking sticks shall be as agreed to between the buyer and the seller subject to a tolerance of \pm 5 percent for Type I and \pm 3 percent for Type II.

7 MARKING

- **7.1** Each picking stick shall be marked at a suitable place with the manufacturer's name, initials or trademark, if any:
 - a) Type of picking stick;
 - b) Trade name of the species of timber in case of Type I;
 - Type of loom on which the picking sticks are to be used;
 - d) Number of picking sticks in the bundle;
 - e) Gross and net mass;
 - f) Lot/batch number;
 - g) Country of origin; and
 - h) Any other information required by the law in force and/or by the buyer.

7.2 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.

8 PACKING

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.

9 SAMPLING

- **9.1** 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
- **9.2** 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.
- **9.3** 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 co1 (2), col (3) and col (5) of Table 1.
- **9.4** The number of picking sticks to be tested and criterion for conformity for each of the characteristics shall be as follows:

Characteristic	No. of Picking Sticks to be Tested	Criterion for Conformity
Dimensions	According to col (3) of Table 1	Non-conforming sticks not to exceed the corresponding number given in co1 (4) of Table 1
Mass and all other requirements	According to co1 (5) of Table 1	Each observed value satisfies the requirements

Table 1 Sample Size and Permissible Number of Non-conforming Picking Sticks $(Clause\ 9.3)$

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 - 280	13	1	3
iii)	281 - 500	20	2	3
iv)	501 and above	32	3	5

ANNEX A

(Foreword)

COMMITTEE COMPOSITION

Textile Machinery and Accessories Sectional Committee, TXD 14

Organization Representative(s)

Central Manufacturing Technology Institute, Bengaluru DR NAGAHANUMAIAN (Chairperson)

ATE Enterprises Private Limited, New Delhi Shri Abhijit Kulkarni

SHRI ANIL KUMAR SHARMA (Alternate)

Amritlakshmi Machine Works, Mumbai Shri N. K. Brahmachari

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Confederation of Indian Textile Industry, New Delhi Shri Ajay Kumar

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SHRI RAJMEET DHAMMU (Representative)

HLL Lifecare Limited, Noida Shri Akhil G. S.

SHRI RATNAKAR GUPTA (Alternate)

ICAR-Central Institute for Research on Cotton Dr V. G. ARUDE

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SHRI PARTHA

SHRI PARTHA SANYAL (Alternate)

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Indian Textile Accessories and Machinery Manufacturers

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Laxmi Shuttleless Looms Private Limited, Ahmedabad Shri Ketan Sanghvi

Man Made Textiles Research Institute, Surat DR S. K. BASU

Ministry of Heavy Industries and Public Enterprises,

Department of Heavy Industry, New Delhi

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SHRI S. SUNDAR (*Alternate*)

National Safety Council, Navi Mumbai Shri Lalit R. Gabhane

SHRI R. R. DEOGHARE (Alternate)

Office of the Textile Commissioner, Mumbai Shri C. R. Kalesan

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Organization

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SHRI DURADUNDESHWAR HIREMATH (Alternate)

Textile Machinery Manufacturers Association, Mumbai Shri M. Shankar

SHRI PRASHANT MANGUKIA (Alternate)

The Bombay Textile Research Association, Mumbai SHRI VIJAY GAWDE

SHRI R. A. SHAIKH (Alternate)

The Synthetic and Art Silk Mills Research Association, D

Mumbai

DR MANISHA MATHUR

SHRI SANJAYA SAINI (Alternate)

The Textile Association (India), Mumbai Shri J. B. Soma

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Truetzschler India Private Limited, Ahmedabad Shri Pravin Kandge

SHRI SHILADITYA JOSHI (Alternate)

United Nations International Children's Emergency

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Shri Swapnil
Scientist 'B'/Assistant Director
(Textiles), BIS

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This Indian Standard has been developed from Doc No.: TXD 14 (20072).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected	

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