

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

Draft for comments only

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भारतीय मानक मसौदा

वस्त्रादि — जूट उद्योग के लिए कपास स्पिंडल्स टेप— विशिष्टि

(IS 1974 का तीसरा पुनरीक्षण)

(Draft Indian Standard)

TEXTILES — COTTON SPINDLE TAPES FOR JUTE INDUSTRY—
SPECIFICATION

(Third Revision of IS 1974)

ICS 59.060.10

Technical Textile for Clothtech Application,
Including Narrow Fabric and Braid Sectional Committee,
TXD 39

Last date for receipt of comments

October 2024

FOREWORD

(Formal clauses will be added later)

This standard was first published in 1961, and subsequently revised in 1971 and 1982. This standard has been revised again to incorporate the following major changes:

- Title of the standard has been modified;
- Packaging clause has been modified; and
- BIS Certification Marking Clause has been updated.

The number of varieties have been reduced. Instead of 14 varieties, this standard covers only three types and out of these three type, types 1 and 3 consist of two grades and type 2 consists of only one grade after studies to this effect were carried out at IJIRA.

The recommended use of the tapes covered in this standard is as follows:

| Type | Width | Recommended Use |
|------|-------|--|
| 1) | 2) | 3) |
| i. | 25 mm | 108 mm pitch slip draft and apron draft spinning frames, and old (FLCB) twisting frame |
| ii. | 35 mm | 140 mm pitch spinning frame |
| iii. | 38 mm | 140 mm pitch slip draft spinning frame and Mackies (New) twisting frames |

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.

1 SCOPE

This standard covers three types and two grades of cotton spindle tapes used in the jute industry.

2 REFERENCES

The standards listed in Annex A contain provisions which through references in this text, constitute provisions of this standard. At the time of publications, the editions indicated were valid. All standards are subjected to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

3 MATERIALS

3.1 For the following two grades the cotton yarns of the following counts and conforming to IS 171 should be used:

| Grade | Yarn Count | |
|-------|--------------------------------|--------------------------------|
| | Warp | Weft |
| 1) | 2) | 3) |
| i) | 60 tex × 5(5/10 ^s) | 60 tex × 3(3/10 ^s) |
| ii) | 25 tex × 6(6/24 ^s) | 25 tex × 7(7/24 ^s) |

4 PHYSICAL REQUIREMENTS

4.1 The tapes of the types and grades mentioned in Table 1 shall comply with the requirements given in the same table.

4.2 Weave

Herringbone (2/2 V-Twill).

4.3 Coloured Threads for Identification

Should be of the same count as warp.

NOTE— The quantity in short length (each 5 m, Min) shall not exceed 5 percent of the total quantity in the consignment.

5 CHEMICAL REQUIREMENTS

5.1 The tapes shall be free from sizing and filling materials and shall also satisfy the following requirements:

| Characteristic | Requirement | Method of Test |
|----------------|-----------------------|-----------------------|
| Scouring loss | 6 percent, <i>Max</i> | IS 1383 (Mild Method) |
| pH value | 6.0 to 10.0 | IS 1390 |

Table 1 Requirements For Cotton Spindle Tapes For Jute Industry
(Clause 4.1)

| SI No. | Type | Length of Roll, Min | Width | Ends in Full Width, Min | Picks/cm Min | Mass, Max | Breaking Strength, Full Width × 20 cm, kgf, Min | Elongation at Break, Max |
|----------------|------|---------------------------------|---------|-------------------------|--------------|-----------|---|--------------------------|
| | | mm | mm | | | g/m | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| i) | i) | 35 m unless otherwise specified | 25 ± 2 | 68 80 | 7 9 | 25 17 | 275 205 | 20 percent |
| ii) | ii) | | 35 ± 2 | | | | | |
| iii) | iii) | | 38 ± 2 | 102 120 | 7 9 | 36 26 | 410 305 | |
| Method of Test | | IS 1954 | IS 1963 | | | | | IS 1964 |

NOTE — 1N=0.102 kgf.

6 PACKING

6.1 In the form of tight rolls to be supplied loose or in adequately water proof packing as detailed in the contract or order.

7 MARKING

7.1 Each roll shall bear a label carrying information about name/trademark of the manufacturer, width (mm), length (m), mass (g) and grade (in case of 25 and 38 mm tapes).

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 product(s) may be marked with the Standard Mark.

8 SAMPLING

8.1 As follows unless otherwise specified:

| For Length, Width, Ends and Picks | | | Sub-sample Size of Mass, Scouring Loss, pH, Breaking Strength and Elongation |
|-----------------------------------|---------------------|---------------------------------------|--|
| Lot Size (Rolls) | Sample Size (Rolls) | Permissible Number of Defective Rolls | |
| Up to 50 | 3 | 0 | 3 |
| 51 to 150 | 5 | 0 | 3 |
| 150 to 300 | 8 | 1 | 4 |
| 301 to 500 | 13 | 1 | 5 |
| 501 and above | 20 | 2 | 7 |
| | | | 'Mean \pm 0.6 range' to be within the specified limits |

ANNEX A
(Clause 2)
LIST OF REFERRED STANDARDS

| <i>IS No.</i> | <i>Title</i> |
|----------------------------|--|
| IS 171 : 1993 | Textiles – Ring spun grey cotton yarn for weaving – Specification (<i>fourth revision</i>) |
| IS 1383 : 2023 | Methods for determination of scouring loss in grey and finished cotton textile materials (<i>Second Revision</i>) |
| IS 1390 : 2022 | Textiles Determination of pH of aqueous extract (<i>Third Revision</i>) |
| IS 1954 : 2024 | Determination of length and width of woven fabrics – Methods (<i>Third Revision</i>) |
| IS 1963 : 1981 | Methods for determination of threads per unit length in woven fabrics (<i>Second Revision</i>) |
| IS 1964 : 2001 | Textiles – Methods for determination of mass per unit length and mass per unit area of fabrics (<i>Second Revision</i>) |
| IS 1969 (Part 1) : 2018 | Textiles – Tensile properties of fabrics – Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>Fourth Revision</i>) |