
वस्त्रादि — सपाट सूती बत्तियाँ — विशिष्टि
(दूसरा पुनरीक्षण)

**Textiles — Flat Cotton Wicks —
Specification**
(*Second Revision*)

ICS 59.080.20

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Price Group 5

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee had been approved by the Textile Division Council.

This standard was first published in 1960 and has been revised in 1977. The current revision has been brought out 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) BIS certification marking clause has been modified; and
- c) References to Indian Standards have been updated.

The composition of the Committee responsible for the formulation of this standard is given in [Annex C](#).

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 — FLAT COTTON WICKS — SPECIFICATION***(Second Revision)***1 SCOPE**

This standard prescribes the requirements of flat cotton wicks (6 mm to 25 mm wide) for use in hurricane lanterns and lamps.

2 REFERENCES

The standards listed in [Annex A](#) 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 edition of these standards.

3 MANUFACTURE AND WORKMANSHIP**3.1 Yarn**

Cotton yarn used for the manufacture of wicks shall be free from leaf particles, neps, snarls, slubs and

other defects.

The approximate count of yarn is given in [Table 1](#) for the guidance of the manufacturer.

3.2 Wick

The wick shall be woven in double plain weave, uniform in thickness and width free from weaving defects as far as practicable, and also free from sizing and finishing materials.

4 PHYSICAL REQUIREMENTS

The flat cotton wicks conforming to this standard shall also meet the physical requirements given in [Table 2](#).

5 CHEMICAL REQUIREMENTS

The wicks shall also meet the chemical requirements given in [Table 3](#).

Table 1 Count of Yarns Used in Wicks*(Clause [3.1](#))*

| Sl No. (1) | Characteristic (2) | Count (3) |
|---------------|-------------------------|---------------------------------|
| i) | <i>Warp</i> | |
| | a) Face and back | 98 tex × 3 (6 ^s /3) |
| | b) Selvedge and binding | 60 tex × 2 (10 ^s /2) |
| ii) | <i>Weft</i> | 20 tex × 2 (30 ^s /2) |

Table 2 Physical Requirements of Flat Cotton Wicks

(Clause 4)

| Sl No. | Width, mm | Mass, g per Roll, 10 m Min | Nominal Thickness, mm | Ends in Full Width | | | Total Ends in Selvedges, Min | Picks/cm Min |
|-------------------|--------------|--|-----------------------------|--------------------|------|---------|---------------------------------------|-----------------|
| | | | | Face | Back | Binding | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| i) | 6 ± 1 | 50 | 2.15 $\frac{+0}{-0.05}$ | 6 | 6 | 3 | 5 | 11 |
| ii) | 9 ± 1 | 65 | 2.25 $\frac{+0}{-0.05}$ | 8 | 8 | 3 | 9 | 11 |
| iii) | 12 ± 1 | 90 | 2.15 $\frac{+0}{-0.05}$ | 10 | 10 | 4 | 9 | 11 |
| iv) | 15 ± 2 | 120 | 2.00 $\frac{+0}{-0.05}$ | 14 | 14 | 6 | 9 | 11 |
| v) | 19 ± 2 | 150 | 1.90 $\frac{+0}{-0.05}$ | 18 | 18 | 8 | 9 | 11 |
| vi) | 22 ± 2 | 165 | 2.00 $\frac{+0}{-0.05}$ | 20 | 20 | 9 | 9 | 11 |
| vii) | 25 ± 2 | 195 | 2.15 $\frac{+0}{-0.05}$ | 24 | 24 | 11 | 9 | 11 |
| Method of Test | IS 1954 | IS 1964 | IS 7702 | IS 1963 | | | | |

Table 3 Chemical Requirements of Flat Cotton Wicks

(Clause 5)

| Sl No. | Characteristic | Requirement | Method of Test, Ref to |
|--------|---|-------------|------------------------|
| (1) | (2) | (3) | (4) |
| i) | pH of aqueous extract | 6.0 to 8.5 | IS 1390 |
| ii) | Scouring loss, percent, <i>Max</i> | 6.0 | IS 1383 |
| iii) | Oil absorption time taken for a rise of 5 cm, s, <i>Max</i> | 36 | Annex B |

6 PACKING

Unless otherwise agreed to between the buyer and the seller, the wicks shall be packed in rolls of 10 m in such a way that the product remains duly protected from moisture.

7 MARKING

7.1 Each roll of wicks shall be attached with a tag legibly marked with the following information:

- Name of the material;
- Width (mm);
- Length of roll (m);

- Lot/Batch no.;
- Indication of the source of manufacture; and
- Any other information as required by the law in force.

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 The lot shall consist of all the wicks of the same width delivered to a buyer against one dispatch note.

8.2 Unless otherwise sampling plan is specified in the contract or order, the sampling plan as given in [Table 4](#) may be used for inspecting and testing of wicks against this standard. The number of wicks to be selected from the lot for assessing manufacture and workmanship (see [3.1](#) and [3.2](#)) shall be as per col (3) of [Table 4](#). The number of test specimens to

be selected for other tests shall be in accordance with col (5) of [Table 4](#). To ensure the randomness of selection, IS 4905 may be followed.

8.3 Criteria for Conformity

The lot shall be declared conforming to the requirements of this standard if the total number of defective samples does not exceed the permissible numbers given in col (4) or col (6) of [Table 4](#) as applicable.

Table 4 Sampling Plan for Flat Cotton Wicks

(Clauses [8.2](#) and [8.3](#))

| Sl No. | Lot Size | Sample Size | Permissible No. of Defectives Samples | Sub-Sample Size (to be Drawn from Sample) | Permissible No. of Defectives Sub-samples |
|--------|-----------------|-------------|---------------------------------------|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) |
| i) | 2 to 25 | 3 | 0 | 3 | 0 |
| ii) | 26 to 90 | 13 | 1 | 3 | 0 |
| iii) | 91 to 150 | 20 | 2 | 13 | 1 |
| iv) | 151 to 280 | 32 | 3 | 13 | 1 |
| v) | 281 to 500 | 50 | 5 | 20 | 1 |
| vi) | 501 to 1 200 | 80 | 7 | 32 | 2 |
| vii) | 1 201 and above | 125 | 10 | 50 | 3 |

NOTE — If sample size equals or exceeds lot size, carry out 100 percent inspection.

Table 5 Criteria for Conformity

(Clause [8.3](#))

| Sl No. | Characteristic | Sample Size | Criteria for Conformity |
|--------|--|---|--|
| (1) | (2) | (3) | (4) |
| i) | Mass, width, nominal thickness, ends in full width, total ends in selvages, picks/cm | According to col (3) of Table 4 | Non-conforming cotton wicks not to exceed corresponding number given in col (4) of Table 4 |
| ii) | pH of aqueous extract, scouring loss, oil absorption time taken for a rise of 5 cm | According to col (5) of Table 4 | All cotton wicks to satisfy the requirements specified in Annex B |

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

| <i>IS No.</i> | <i>Title</i> | <i>IS No.</i> | <i>Title</i> |
|-------------------------------------|---|------------------------------------|---|
| IS 1383 : 2023 | Methods for determination of scouring loss in grey and finished cotton textile materials (<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 1390 : 2022/ ISO 3071 : 2020 | Textiles — Determination of pH of aqueous extract (<i>third revision</i>) | IS 4905 : 2015 ISO 24153 : 2009 | Random sampling and randomization procedures (<i>first revision</i>) |
| IS 1459 : 2018 | Kerosene — Specification (<i>fourth revision</i>) | IS 7702 : 2012/ ISO 5084 : 1996 | Textiles — Determination of thickness of textiles and textile products (<i>first revision</i>) |
| IS 1954 : 2024/ ISO 22198 : 2006 | Textiles — Fabrics — Determination of width and length (<i>third revision</i>) | | |
| IS 1963 : 1981 | Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>) | | |

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ANNEX B

(Table 3 and Table 5)

METHOD OF TEST FOR OIL ABSORPTION TIME

B-1 Cut one specimen measuring approximately 15 cm from each roll.

B-2 Take a beaker and a stand.

B-3 Take one test specimen and place two marks *X* and *Y* on it at 5 cm and 10 cm respectively from one

of its ends. Suspend the test specimen from the other end vertically in a beaker containing kerosene (see IS 1459) up to a height of 8 cm so that the mark *X* on the test specimen is just submerged in oil (see Fig. 1). Note the time taken by the kerosene to rise up to the mark *Y*.

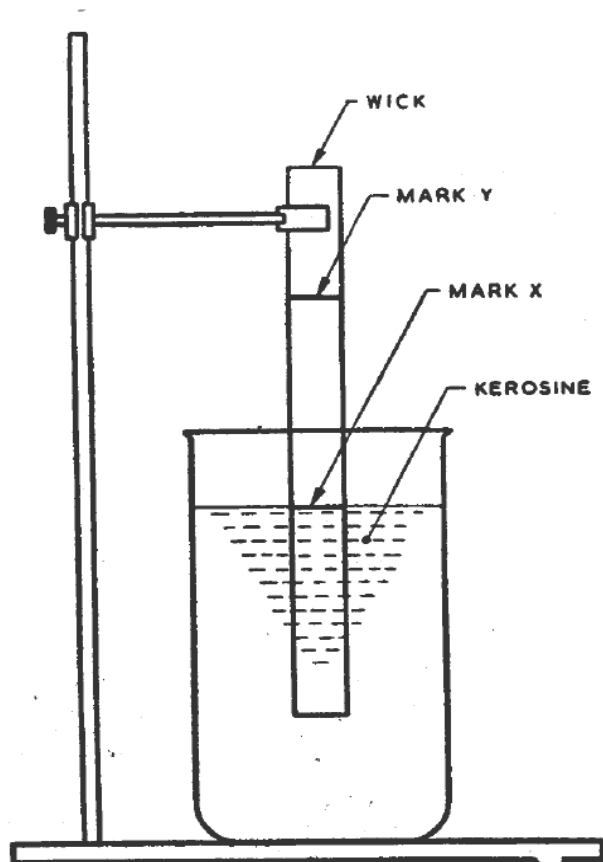


FIG. 1 APPARATUS FOR MEASURING OIL ABSORPTION TIME

ANNEX C

(Foreword)

COMMITTEE COMPOSITION

Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee,
TXD 39

| <i>Organization</i> | <i>Representative(s)</i> |
|--|--|
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Amendments Issued Since Publication

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