**IS 1241 : 2024**

**Doc.No: TXD 08 (23994)**

***भारतीय मानक***

**वस्त्रादि — हथकरघा सूती केलिको, विरंजित या रंगीन — विशिष्टि**

*( दूसरा पुनरीक्षण )*

*Indian Standard*

**Textiles** — **Handloom Cotton Calico, Bleached or Dyed** — **Specification**

*( Second Revision )*

ICS 59.080.30

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**B U R E A U OF I N D I A N S T A N D A R D S**

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**September 2024 Price Group**

Handloom and Khadi Sectional Committee, TXD 08

FOREWORD

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

Handloom cotton calico is a type of fabric that holds cultural significance and woven using traditional handloom techniques. Handloom cotton calico is lightweight and breathable, making it ideal for warm weather garments such as dresses, blouses, and skirts. Its softness adds comfort to the wearer, allowing for easy movement throughout the day. Handloom cotton calico represents a blend of tradition, craftsmanship, and practicality, making it a cherished fabric in various cultural contexts.

This standard was originally published in 1958 and subsequently revised in 1987. The standard has again been revised to incorporate the following changes:

a) Test method for identification of material has been incorporated;

b) Method of test for count of yarn along with its tolerance has been specified;

c) Marking clause has been modified;

d) *p*H value of aqueous extract has been incorporated; and

e) References to Indian Standards have been updated.

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, shall be rounding 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** — **HANDLOOM COTTON CALICO, BLEACHED OR DYED** — **SPECIFICATION**

*(Second Revision)*

**1 SCOPE**

**1.1** This standard prescribes constructional particulars and other requirements of handloom cotton calico, bleached or dyed.

**1.2** This standard does not specify the type of finish, general appearance, lustre and feel of cloth nor does it specify the degree of whiteness of bleached cloth or the colour of dyed cloth.

**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 the standards indicated in Annex A.

**3 MANUFACTURE**

**3.1 Yarn**

The cotton yarn used in the manufacture of calico cloth shall conform to IS 171.

**3.2 Cloth**

The cloth shall be free from substances liable to cause subsequent tendering.

**4 REQUIREMENTS**

**4.1** The constructional particulars of calico cloth shall conform to those given in Table 1.

**4.2** The calico cloth shall also conform to the requirements given in Table 2.

**4.3** If in order to illustrate or specify the indeterminable characteristics such as general appearance, lustre, feel, and shade of the cloth, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respects.

**4.3.1** The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

**5 INSPECTION**

**5.1** The cloth when visually inspected, should be reasonably free from the following defects:

1. Weft crack or more than two missing picks across the width;
2. Prominently noticeable weft bar due to the difference in raw material, count, twist, lustre,

colour, shade, etc;

1. More than two adjacent ends running parallel, broken or missing and extending beyond 15 cm;
2. Prominent selvedge defects;
3. Noticeable warp or weft float;
4. Noticeable oil or other stains;
5. Noticeable hole, cut or tear up to 3 mm in size;
6. Smash rupturing the texture of the fabric; and

j) Prominently noticeable dyeing defects (bars, streaks and patches, etc).

**5.1.1** A reference may be made to IS 14466 for details of these defects.

**Table 1 Constructional Particulars of Handloom Cotton Calico Cloth, Bleached or Dyed**

(*Clause* 4.1)

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Characteristics** | **Requirement** | **Method of Test, Ref to** |
| (1) | (2) | (3) | (4) |
| i) | Count of yarn (for guidance only) Tex (cotton count)  a) Warp  Tolerance  b) Weft  Tolerance | 23 tex (or 26s)  ± 5 percent  23 tex (or 26s)  ± 5 percent | IS 3442 |
| ii) | Number of threads, per dm  a) Ends  Tolerance  b) Picks  Tolerance | 270  ± 5 percent  120  ± 5 percent | IS 1963 |
| iii) | Weight of fabric, g/m2  Tolerance | 120  ± 5 percent | IS 1964 |
| iv) | Dimension  a) Length, m  Tolerance  b) Width, m  Tolerance | As declared  (*see* Note)  90 or as declared  -2 percent | IS 1954 |
| v) | Weave | Plain | Visual |
| NOTE — The length shall not be less than the declared length. | | | |

**6 SAMPLING**

**6.1** The scale of sampling and criteria for conformity as given in IS 3919 shall be followed in respect of physical characteristics, namely, number of threads per decimetre, weight and dimension.

**6.2** The scale of sampling and criteria for conformity as given in IS 5463 shall be followed in respect of chemical characteristics of colour fastness, dimensional changes, fibre identification and scouring loss.

**7 MARKING**

**7.1** The cloth shall be suitably marked or labelled with the following information:

1. Name of the material;
2. Manufacturer’s name, initials or trade-mark;
3. Month and year of manufacture;
4. Length and width of piece;
5. Indication of the source of manufacture; and
6. Other declarations required as per law in force.

**7.2 BIS Certification Marking**

The product 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 may be marked with the Standard Mark.

**8 PACKING**

Unless otherwise agreed upon by the buyer and the seller, the cloth shall preferably be packed in bales or cases in conformity with the procedure laid down in IS 1347 or IS 293.

**Table 2 Requirements of Handloom Cotton Calico Cloth, Bleached or Dyed**

(*Clause* 4.2)

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Characteristics** | **Requirement** | **Method of Test, Ref to** |
| (1) | (2) | (3) | (4) |
| i) | Colour fastness rating to (for dyed cloth only)  a) Light | 5 or better | IS/ISO 105-B01 or  IS/ISO 105-B02 |
| b) Washing Test 4:  1) Change in colour  2) Staining in cotton | 4 or better  4 or better | IS/ISO 105-C10 |
| c) Bleaching:  1) Change in colour  2) Staining in cotton | 4 or better  4 or better | IS/ISO 105-N01 |
| d) Perspiration:  1) Change in colour  2) Staining in cotton | 4 or better  4 or better | IS/ISO 105-E04 |
| ii) | Dimensional change, percent, *Max* | 4 | IS 2977 |
| iii) | Scouring loss, percent, *Max* | 2.5 | IS 1383 |
| iv) | *p*H value of aqueous extract | 6.0 to 8.5 | IS 1390 |
| v) | Fibre identification | 100 percent cotton | IS 667 |

**ANNEX A**

(*Clause* 2)

**LIST OF RFERRED STANDARDS**

|  |  |
| --- | --- |
| *IS No.* | *Title* |
| IS 171 : 1993 | Textiles — Ring spun grey cotton yarn for weaving — Specification (*fourth revision*) |
| IS 293 : 1980 | Code for seaworthy packaging of cotton yarn and cloth (*third revision*) |
| IS 667 : 1981 | Methods for identification of textile fibres (*first revision*) |
| IS 1347 : 1972 | Specification for inland packaging of cotton cloth and yarn (*first revision*) |
| IS 1383 : 2023 | Methods for determination of scouring loss in grey and finished cotton textile materials (*second revision*) |
| IS 1390 : 2022 | Textiles — Determination of *p*H of aqueous extract (*third revision*) |
| IS 1954 : 2024/  ISO 22198 : 2006 | Textiles — Fabrics — Determination of width and length (*third* *revision*) |
| IS 1963 : 1981 | Methods for determination of threads per unit length in woven fabrics (*second revision*) |
| IS 1964 : 2001 | Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics (*second revision*) |
| IS 2977 : 1989 | Fabrics (other than wool) — Method for determination of dimensional changes on soaking in water (*first revision*) |
| IS 3442 : 2023 | Textiles method for determination of crimp and linear density of yarn removed from fabric |
| IS 3919 : 1966 | Methods for sampling cotton fabrics for determination of physical characteristics |
| IS 5463 : 2022 | Methods for sampling of cotton fabrics for chemical tests first revision |
| IS 14466 : 1997/  ISO 8498 : 1990 | Fabrics — Description of defects — Vocabulary |
| IS/ISO 105-B01: 2014 | Textiles — Tests for colour fastness — Part B01 Colour fastness to light: Daylight |
| IS/ISO 105-B02 : 2014 | Textiles — Tests for colour fastness — Part B02 Colour fastness to artificial light: Xenon arc fading lamp test |
| IS/ISO 105-C10 : 2006 | Textiles — Tests for colour fastness — Part C10 Colour fastness to washing with soap or soap and soda |
| IS/ISO 105-N01 : 1993 | Textiles — Tests for colour fastness — Part N01 Colour fastness to bleaching: Hypochlorite |
| IS/ISO 105-E04 : 2013 | Textiles — Tests for Colour Fastness — Part E04 Colour Fastness to Perspiration |

**ANNEX B**

(*Foreword*)

**COMMITTEE COMPOSITION**

Handloom and Khadi Sectional Committee, TXD 08

|  |  |
| --- | --- |
| *Organization* | *Representative(s)* |
| Weavers Service Centre, Delhi | Shri Vishesh Nautiyal (***Chairperson***)  Shri Vikas Kumar (*Alternate*) |
| Central Pollution Control Board, New Delhi | Shri P. K. Mishra  Shri Rishabh Srivastav (*Alternate*) |
| Center of Excellence for Khadi (COEK)-NIFT, New Delhi | Representative |
| CRPF, New Delhi | Shri D. P. Upadhyay  Shri Sanjeev Kumar Singh (*Alternate*) |
| Department of Handlooms & Textiles, Chennai | Representative |
| Fabindia, New Delhi | Representative |
| Flag Foundation of India, New Delhi | Representative |
| Gandhigram Rural Institute, Dindigul | Dr B. Senthil Kumar |
| Haryana Khadi Gramodyog Sangh, Karnal | Shri Pawan Garg  Shri R. S. Yadav (*Alternate*) |
| ICAR – Central Institute for Research on Cotton Technology, Mumbai (CIRCOT) | Dr Sujata Saxena  Dr A.S.M. Raja (*Alternate*) |
| Indian Institute of Handloom Technology, Jodhpur | Dr J. Sivagnanam |
| Indian Institute of Handloom Technology, Salem | Dr P. Thennarasu |
| Indian Institute of Handloom Technology, Varanasi | Representative |
| Indian Institute of Technology, Delhi | Representative |
| Indo Tibetan Border Police, New Delhi | Shri Uttam Kumar  Shri Anand Kumar (*Alternate*) |
| Jan Sewa Ashram, Aligarh | Shri R. K. Sharma  Shri Akhilesh Kumar Awasthi (*Alternate*) |
| Karnatka Khadi Gramodyog Samyuktha Sangha, Hubli | Shri K. V. Pattar  Shri Shivananda S. Mathapati (*Alternate*) |
| Khadi Dyers & Printers, Mumbai | Shri D. N. Bhatt  Shri V. D. Joshi (*Alternate*) |
| Khadi Gramodyog Mandal, Rampur | Shri Rakesh Chaudhary  Shri Prince Chaudhary (*Alternate*) |
| Kshetriya Khadi Gramodyog Samiti, Dausa | Shri R. K. Singh |
| Khadi and Village Industries Commission, Mumbai | Representative |
| Madhya Bharat Khadi Sangh, Gwalior | Shrimati Neelu Mekle  Shri Harish Mekle (*Alternate*) |
| Mahatma Gandhi Institute for Rural Industrialization, Wardha | Shri Mahesh kumar  Dr Tapan Ranjan Kar (*Alternate*) |
| Metpalli Khadi Gramodyog Pratisthan, Metpalli | Shri G. Madhav |
| Ministries of Defence (DGQA), New Delhi | Shri Arvind Compathane  Shri N. Senthil Kumar (*Alternate*) |
| Ministries of Health, New Delhi | Representative |
| National Handloom Development Corporation Ltd., Gautam Budh Nagar | Dr Sakthivel Perumal Samy  Shri Jitendra Tolambiya (*Alternate*) |
| Northern Railways, New Delhi | Shri Sanjeev Kumar Jain  Shri Rajesh Kumar (*Alternate*)  Shri Sandeep Kumar Singh  (Young Professional) |
| Northern India Textile Research Association, Ghaziabad | Dr M. S. Parmar  Shri Sanjeev Shukla (*Alternate*) |
| Office of the Development Commissioner for Handlooms, New Delhi | Shri Siddharth Singh  Shri Vinay Kumar (*Alternate*) |
| Orient Processes Pvt. Ltd., Guwahati | Shri Robin Chandra Goswami  Shri Raj Buragohain |
| Rastriya Khadi Gramodyog Federation, Moradabad | Shri Anil Kumar Singh  Shri Kuldeep Singh (*Alternate*) |
| Swastik Gramodyog Samiti, Delhi | Shri M. L. Pathak  Shri Abhishek Dixit (*Alternate*) |
| The Cotton Textiles Export Promotion Council (TEXPROCIL), Mumbai | Dr Siddhartha Rajagopal  Shri Rajesh Satam (*Alternate*) |
| The Handloom Export Promotion Council, Chennai | Dr M. Sundar  Shri N. Sreedhar (*Alternate*) |
| The Tamil Nadu Handloom Weavers' Cooperative Society Ltd, Chennai | Shri T. N. Venkatesh, I.A.S.  Shri K. Kathiresan (*Alternate*) |
| BIS Directorate General | Shri J. K. Gupta, Scientist ‘E’/ Director and Head (Textiles) [Representing Director General (*Ex-officio*)] |

*Member Secretary*

SHRI SWAPNIL

Scientist ‘B’/ Assistant Director

(Textiles), BIS