**IS 1247 : 2024**

**Doc.No: TXD 08 (24018)**

***भारतीय मानक***

**वस्त्रादि — हथकरघा सूती मद्रास चेक — विशिष्टि**

*( दूसरा पुनरीक्षण )*

*Indian Standard*

**Textiles** — **Handloom Cotton Madras Check** — **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.

Cotton Madras check is a fabric from Madras, India, now called Chennai. It has a special checked pattern with bright colors and bold designs. People often use it to make shirts, dresses, skirts, and other light clothes, especially in the summer. Its colorful patterns make clothes and accessories look stylish and lively.

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

a) Marking clause has been modified;

b) References to Indian Standards have been updated;

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

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

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

f) Sampling clause has been modified.

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** — **HANDLOOM COTTON MADRAS CHECK** — **SPECIFICATION**

*(Second Revision)*

**1 SCOPE**

**1.1** This standard prescribes the constructional particulars and other requirements of handloom cotton madras check.

**1.2** This standard does not specify the type of finish, general appearance, lustre and feel of cloth nor does it specify the colour or colour combination of check.

**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 editions of the standards indicated in Annex A.

**3 MANUFACTURE**

**3.1 Yarn**

The cotton yarn used in the manufacture of madras check cloth shall conform to the requirements of 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 madras check shall conform to those given in Table 1.

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

**4.3** If, in order to illustrate or specify the type of finish, general appearance, lustre and feel of cloth or to specify the colour or colour combination of check, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respect.

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

**Table 1 Constructional Particulars of Handloom Cotton Madras Check**

(*Clause* 4.1)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl No.** | **Characteristic** | **Requirement** | | **Tolerance** | **Method of Test, Ref to** |
| **Loomstate** | **Washed** |
| (1) | (2) | (3) | (4) | (5) | (6) |
| i) | Count of yarn (for guidance only)  Cotton count (Tex):  a) Warp  b) Weft | 60s (9.8 tex)  40s (14.8 tex) | 60s (9.8 tex)  40s (14.8 tex) | ± 5 percent ± 5 percent | IS 3442 |
| ii) | Number of threads per decimetre:  a) Ends  b) Picks | 330  330 | 340  340 | ± 5 percent  ± 5 percent | IS 1963 |
| iii) | Mass, g/m2 | 90 | 85 | ± 5 percent | IS 1964 |
| iv) | Dimensions:  a) Length, m  b) Width, cm | As agreed  As agreed | | Not less than as declared or marked  ˗ 2 percent | IS 1954 |
| v) | Weave | Plain | | — | Visual |

**Table 2 Requirements of Handloom Cotton Madras Check**

(*Clause* 4.2)

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Characteristic** | **Requirement** | **Method of Test, Ref to** |
| (1) | (2) | (3) | (4) |
| i) | Colour fastness rating to:  a) Light  b) Washing Test 4  1) Change in colour  2) Staining on cotton  c) Bleaching  1) Change in colour  2) Staining on cotton | 4 or better  4 or better  4 or better  4 or better  4 or better | IS/ISO 105-B01  or  IS/ISO 105-B02  IS/ISO 105-C10  IS/ISO 105-N01 |
| ii) | Dimensional changes, percent, *Max*:  a) Loomstate  1) Warp way  2) Weft way  b) Washed  1) Warp way  2) Weft way | 5  2  2.5  1 | IS 2977 |
| iii) | Scouring loss, percent, *Max*  1) Loomstate  2) Washed | 8  2.5 | IS 1383 |
| iv) | *p*H value of aqueous extract | 6.0 to 8.5 | IS 1390 |
| v) | Fiber identification | 100 percent cotton | IS 667 |

**5 INSPECTION**

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

1. More than two adjacent ends running parallel, broken or missing and extending beyond 20 cm;
2. Weft crack or more than two missing picks across the width of the material;
3. Prominently noticeable weft bar due to the difference in raw material, count, twist, lustre, etc;
4. Noticeable selvedge defects;
5. Noticeable warp or weft float in the body;
6. Noticeable oil and other stains;
7. Noticeable hole, cut or tear up to 3 mm size;
8. Smash rupturing the texture of the fabric;

j) Undressed snarls noticeable throughout the piece;

k) Conspicuous gout due to foreign matter usually lint or waste woven;

m) Conspicuous broken pattern;

n) Prominently noticeable dyeing defects; and

p) Any other flaw which would mar the appearance or affect the serviceability and/or

durability of cloth.

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

**6 SAMPLING**

**6.1** The quantity of handloom cotton madras check cloth of the same variety delivered to a buyer against a despatch not shall constitute a lot.

**6.2** To ascertain the conformity of the lot to the requirements of this standard, samples shall be drawn and inspected from each lot separately.

**6.3** The number of pieces to be selected at random for inspection shall be in accordance with Table 3.

**Table 3 Sample Size and Permissible Number of Non-Conforming Pieces**

(*Clause* 6.3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl No.** | **Lot Size** | **Sample Size** | **Permissible No. of Non-Conforming Pieces** | **Sub Sample Size** |
| (1) | (2) | (3) | (4) | (5) |
| i) | Up to 90 | 5 | 0 | 3 |
| ii) | 91 to 150 | 8 | 0 | 3 |
| iii) | 151 to 500 | 13 | 1 | 5 |
| iv) | 501 to 1200 | 20 | 1 | 5 |
| v) | 1201 to 10000 | 32 | 2 | 8 |
| vi) | 10001 to 35000 | 50 | 3 | 8 |
| vii) | 35001 to 500000 | 80 | 5 | 13 |
| viii) | 500001 and above | 125 | 7 | 13 |

**6.4 Number of Tests and Criterion for Conformity**

|  |  |  |  |
| --- | --- | --- | --- |
| *Sl No.* | *Characteristic(s)* | *No. of Tests* | *Criterion for Conformity* |
| (1) | (2) | (3) | (4) |
| i) | Length, width, ends and picks | According to co1 (3) of  Table 3 | Permissible number of non-conforming piece does not exceed the corresponding number given in co1 (4) of Table 3 |
| ii) | Count of yarn, colour fastness, dimensional changes, scouring loss and fibre identification | According to co1 (5) of  Table 3 | All the test specimens meet the relevant requirements |

**7 MARKING**

**7.1** The cloth shall be marked with the following:

a) Name of the material;

b) Manufacturer's name, initials or trade-mark;

c) Length and width;

d) Count of warp and weft yarn;

e) Indication of the source of manufacture; and

f) Other declarations required as per 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 may be marked with the Standard Mark.

**8 PACKING**

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

**ANNEX A**

(*Clause* 2)

**LIST OF REFFERED 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 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 |

**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