भारतीय मानक

Indian Standard

IS 894 : 2023

वस्त्रादि — हथकरघा निर्मित ब्रिक रेड ऊनी कम्बल — विशिष्टि

(दूसरा पुनरीक्षण)

Textiles — Handloom Wool Blankets Brick Red — Specification

(Second Revision)

ICS 59.080.30

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110002
www.bis.gov.in www.standardsbis.in

August 2023 **Price Group 5**

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.

This standard was originally published in 1957 and was subsequently revised in 1980. The standard has again been revised to incorporate the following major changes:

a) Method of test for count of yarn along with its tolerance has been specified;
b) Tolerances for ends/dm, picks/dm and mass have been modified;
c) Test method for identification of material has been incorporated;
d) Sampling plan has been updated;
e) BIS certification marking clause has been modified; and
f) 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 — HANDLOOM WOOL BLANKETS BRICK RED — SPECIFICATION

(Second Revision)

1 SCOPE

1.1 This standard prescribes constructional particulars and other requirements for two varieties of handloom wool blankets, used in hospitals.

1.2 This standard does not specify general appearance and feel of the blankets.

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

3.1 Yarn

The yarn used in the manufacture of blankets shall be spun on woollen system from wool having average fibre diameter between 31.00 microns and 32.69 microns and shall be free from admixture of non-wool fibres.

3.2 Blankets

The blankets shall be properly washed and shall be free from grease, soap, filling or any other admixture which would give fictitious mass or firmness.

3.2.1 The blankets shall be milled and given a raised finish.

3.2.2 The transverse ends of the blankets shall have 2.5 cm wide continuous piping of cotton long cloth. The piping shall be securely sewn to the body of the blanket with cotton sewing thread of 60 s/3 (100 dtex × 3) count conforming to IS 1720. The number of stitches per centimetre shall be not less than 4. The shade of the piping and sewing thread shall match closely to that of the blanket.

3.2.3 The blankets shall be rendered mothproof with dichlorodiphenyl trichloroethane (DDT), or otherwise heavily preserved with naphthalene.

NOTE — The manufacturer shall declare whether the blankets have been rendered mothproof or not.

3.2.4 The blankets when visually examined, both against light and on a flat surface shall not have more than one objectionable flaw per blanket. The objectionable flaws shall be those which immediately strike the eyes of the person examining the blankets and shall be deemed to include:

a) missing ends and picks;
b) floats;
c) cuts and holes;
d) stains;
e) weft bars and warp section marks; and
f) big slubs and knots.

4 REQUIREMENTS

4.1 The constructional particulars of the blankets shall be as given in Table 1.

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

5 SAMPLING

5.1 Lot

The quantity of blankets of the same variety delivered to a buyer against a despatch note shall constitute a lot.

5.2 The conformity of a lot shall be determined on the basis of the tests carried out on samples from the lot.

5.3 Unless otherwise agreed to between the buyer and the seller, the number of blankets to be selected at random from a lot shall be according to Table 3. To ensure the randomness of selection, methods given in IS 4905 shall be followed.

Table 1 Constructional Particulars Handloom Wool Blankets Brick Red

(*Clause* 4.1)

Sl No.	Variety No.	Ends/dm	Picks/dm	Mass per blanket kg	Mass g/m^2	Length cm	Width cm	Breaking Load on 15 cm × 20 cm strips, *Min* N (kgf)		Weave
								Warp	Weft	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
i)	1	80	80	2.4	700	230	152	1 080 (110)	830 (85)	2/2 twill
ii)	2	100	85	1.8	525	230	152	960 (98)	680 (70)	2/2 twill
Tolerance, Percent	—	± 5	± 5	± 5	± 5	± 2		—		—
Method of Test, Ref to	—	IS 1963		Annex B	IS 1964	IS 1954		IS 1969 (Part 1)		Visual

NOTE — 1 N (newton) is approximately equal to 0.102 kgf.

Table 2 Other Requirements for Handloom Wool Blankets, Brick Red

(*Clause* 4.2)

Sl No.	Characteristic	Requirement	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Relaxation shrinkage percent, *Max*	4	IS 665
ii)	Scouring loss, percent, *Max*	4	Annex B
iii)	Fibre composition, *Min*	97 percent wool	IS 2006
iv)	DDT, percent, *Max*	0.3	IS 3522 (Part 2)
v)	Colour fastness:		
	a) Light	4 or better	IS/ISO 105-B01 or IS/ISO 105-B02
	b) Washing	3 or better	IS/ISO 105-C10
	c) Organic solvents	4 or better	IS/ISO 105-X05
	d) Rubbing	3 or better	IS/ISO 105-X12
vi)	Average fibre diameter	31.00 microns to 32.69 microns	IS 744

Table 3 Sample Size and Permissible Number of Non-conforming Pieces

(*Clause* 5.3)

Sl No.	Lot Size	Sample Size	Permissible Number 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)	1 201 to 10 000	32	2	8
vi)	10 001 to 35 000	50	3	8
vii)	35 001 to 500 000	80	5	13
viii)	500 001 and above	125	7	13

5.4 Number of Samples and Criteria for Conformity

The number of samples to be drawn and the criteria for conformity of the material for various characteristics shall be as follows:

Sl No.	*Characteristic*	*Number of Samples*	*Criteria for Conformity*
(1)	(2)	(3)	(4)
i)	Visual examination, ends, picks, mass per square metre, mass per blanket, length and width	According to col (2) of Table 3	Permissible number of non-conforming blankets shall not exceed the corresponding number given in col (3) of Table 3
ii)	Breaking load, relaxation shrinkage, scouring loss, fibre composition, DDT percent, colour fastness and fibre diameter	According to col (4) of Table 3	All the test specimens meet the relevant requirement

6 MARKING

6.1 The blankets shall be marked with the following information:

a) Name of the material with variety number;
b) Manufacturer's name, initials or trade-mark, if any;
c) Month and year of manufacture;
d) Mass per blanket and GSM (g/m^2);
e) Length and width of the blankets; and
f) Other declarations required as per law in force.

6.2 BIS Certification Marking

The blankets 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

7 PACKING

7.1 The blankets shall be packed in bales in conformity with the procedure laid down in IS 741, or by the method given in **7.2** if specifically required by the buyer.

7.2 Fifteen blankets of the same variety shall be individually folded and placed one over the other. The folded blankets shall be wrapped in a layer each of polyethylene film, kraft paper and hessian (305 g/m^2) in such a way that hessian forms the outermost layer. Each layer shall have an overlap of minimum 10 cm. The outermost layer shall be suitably stitched with jute twine and the package made secure by means of steel strips or hoops of medium grade. The gross mass of the bale shall normally not exceed 40 kg.

ANNEX A

(*Clause* 2)

LIST OF REFERRED STANDARDS

IS No.	*Title*
IS 665 : 1989	Textiles — Determination of dimensional changes of fabrics containing wool on soaking in water (*first revision*)
IS 741: 1971	Code for inland packaging of woollen and worsted yam and cloth (*first revision*)
IS 744 : 2000	Textiles — Methods for determination of wool fibre diameter, percentage of medullated fibres and kemp fibre (*third revision*)
IS 1720 : 1978	Specification for cotton sewing threads (*first revision*)
IS 1954 : 1990	Determination of length and width of woven fabrics — Methods (*second 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 1969 (Part 1) : 2018/ISO 13934 -1 : 2013	Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (*fourth revision*)
IS 2006 : 1988	Method for quantitative chemical analysis of binary mixtures of protein fibre with certain other non-protein fibres (*second revision*)
IS 3522 (Part 2) : 1989	Textiles — Estimation of common preservatives — Part 2 (*first revision*)
IS 4905 : 2015/ ISO 24153 : 2009	Random sampling and randomization procedures (*first revision*)
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-X05 : 1994	Textiles — Tests for colour fastness: Part X05 Colour fastness to organic solvents
IS/ISO 105-X12 : 2016	Textiles — Tests for colour fastness: Part X12 Colour Fastness to rubbing (*first revision*)

ANNEX B

(*Tables* 1 *and* 2)

METHODS OF TEST

B-l MASS PER BLANKET

B-1.1 Condition all blankets in the test sample to moisture equilibrium in standard atmosphere (65 percent ± 2 percent relative humidity and 27 °C ± 2 °C temperature) for a period of 48 hours in such a way as to expose as far as possible all portions of the blankets to the atmosphere.

B-1.2 Measure the length and width of each blanket, correct to the nearest centimetre and determine the mass and correct to the nearest 10 g. Calculate the mass of the blanket of dimensions specified in Table 1.

B-2 SCOURING LOSS

B-2.1 Test Specimen

From each piece of the test sample cut a test specimen square in shape, with sides parallel to warp and weft threads, and weighing approximately 10 g.

B-2.2 Procedure

B-2.2.1 Heat the test specimen to constant mass in a drying oven at 105 °C ± 3 °C and determine its mass accurately.

NOTE — Constant mass shall be deemed to have been reached, if the difference between the two successive weighings at an interval of 20 minutes is less than 0.05 percent.

B-2.2.2 Extract the above test specimen with a mixture of benzene and methyl alcohol in the proportion of 3 : 2 in a Soxhlet apparatus for 4 hours at the rate of 5 extractions per hour, by placing the specimen in a thimble and covering it with cotton wool previously extracted with the above mixture of benzene and1 methyl alcohol. Distil off the solvents from the extract. Heat the residue to a constant mass (*see* Note under **A-2.2.1**) at 105 °C ± 3 °C and determine the mass accurately.

B-2.3 Calculations

$$\text{Scouring loss, percent} = 100 \times \frac{a+R}{b+R}$$

where

a = mass of the dry residue (**B-2.2.2**);

b = mass of the test specimen (**B-2.2.1)**; and

R = moisture regain percent.

ANNEX C

(*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*)
Baster Adimjati Sewak Sangh, Baster	SHRI SUMIT DAS SHRI AMIT DAS (*Alternate*)
Central Pollution Control Board, New Delhi	SHRI P. K. MISHRA SHRI RISHABH SRIVASTAV (*Alternate*)
Central Reserve Police Force, New Delhi	SHRI D. P. UPADHYAY SHRI SANJEEV KUMAR SINGH (*Alternate*)
Department of Handlooms & Textiles, Chennai	SHRI T. P. RAJESH DR K. KARNAN (*Alternate*)
Gandhigram Rural Institute, Dindigul	REPRESENTATIVE
Haryana Khadi Gramodyog Sangh, Karnal	SHRI PAWAN GARG SHRI R. S. YADAV (*Alternate*)
ICAR – Central Institute for Research on Cotton Technology, Mumbai	DR SUJATA SAXENA DR A. S. M. RAJA (*Alternate*)
Indian Institute of Handloom Technology, Varanasi	DR P. THENNARASU
Indian Institute of Handloom Technology, Jodhpur	DR J. SIVAGNANAM
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. (*Alternate*)
Khadi & Village Industries Commission, New Delhi	SHRI P. NALLAMUTHU SHRI RAM NARAYAN (*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
Madhya Bharat Khadi Sangh, Gwalior	SHRIMATI NEELU MEKLE SHRI HARISH MEKLE (*Alternate*)
Mahatma Gandhi Institute for Rural Industrialization, Wardha	REPRESENTATIVE

Organization	*Representative(s)*
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 PERUMALSAMY SHRI JITENDRA TOLAMBIYA (*Alternate*)
Northern Railways, New Delhi	SHRI SUDHANSHU KUMAR GUPTA
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*)
Rastriya Khadi Gramodyog Federation, Moradabad	SHRI ANIL KUMAR SINGH SHRI KULDEEP SINGH (*Alternate*)
Sushil Gramodyog Sanstha, Ghaziabad	SHRI SUNIL TYAGI
Swastik Gramodyog Samiti, Delhi	SHRI M. L. PATHAK SHRI ABHISHEK DIXIT (*Alternate*)
Textiles Committee, New Delhi	SHRI KARTIKAY DHANDA SHRIMATI SHILPI CHAUHAN (*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 EXPORT PROMOTION OFFICER (*Alternate*)
The Tamil Nadu Handloom Weavers' Cooperative Society Ltd, Chennai	SHRI T. N. VENKATESH SHRI K. KATHIRESAN (*Alternate*)
In Personal Capacity (*148, II Floor, Sector 8, Faridabad, 121006*)	SHRI B. B. PAUL
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

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act*, 2016 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website-www.bis.gov.in or www.standardsbis.in.

This Indian Standard has been developed from Doc No.: TXD 08 (20897).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones: 2323 0131, 2323 3375, 2323 9402 *Website*: www.bis.gov.in

Regional Offices:		*Telephones*
Central	: 601/A, Konnectus Tower -1, 6th Floor, DMRC Building, Bhavbhuti Marg, New Delhi 110002	2323 7617
Eastern	: 8th Floor, Plot No 7/7 & 7/8, CP Block, Sector V, Salt Lake, Kolkata, West Bengal 700091	2367 0012 2320 9474
Northern	: Plot No. 4-A, Sector 27-B, Madhya Marg, Chandigarh 160019	265 9930
Southern	: C.I.T. Campus, IV Cross Road, Taramani, Chennai 600113	2254 1442 2254 1216
Western	: Plot No. E-9, Road No.-8, MIDC, Andheri (East), Mumbai 400093	2821 8093

Branches : AHMEDABAD. BENGALURU. BHOPAL. BHUBANESHWAR. CHANDIGARH. CHENNAI. COIMBATORE. DEHRADUN. DELHI. FARIDABAD. GHAZIABAD. GUWAHATI. HIMACHAL PRADESH. HUBLI. HYDERABAD. JAIPUR. JAMMU & KASHMIR. JAMSHEDPUR. KOCHI. KOLKATA. LUCKNOW. MADURAI. MUMBAI. NAGPUR. NOIDA. PANIPAT. PATNA. PUNE. RAIPUR. RAJKOT. SURAT. VISAKHAPATNAM.

Published by BIS, New Delhi