भारतीय मानक **IS 8797 : 2024**

Indian Standard

वस्त्रादि — स्कूल यूनीफॉर्म के लिए हथकरघा सूती कपड़ा — विशिष्टि

(पहला पुनरीक्षण)

Textiles — Handloom Cotton Fabric for School Uniforms — Specification

(First Revision)

ICS 59.080.30

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Handloom and Khadi Sectional Committee, TXD 08

FOREWORD

This Indian Standard (First 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 first published in 1978. The standard has been revised to incorporate the following changes:

a) Marking clause has been modified;

b) References to standards have been updated;

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

d) Sampling clause has been modified.

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 COTTON FABRIC FOR SCHOOL UNIFORMS — SPECIFICATION

(First Revision)

1 SCOPE

1.1 This standard prescribes the constructional particulars and other requirements of 11 varieties of handloom cotton fabric used in the manufacture of school uniforms. The cloth shall be bleached or dyed.

1.2 This standard does not specify the general appearance, feel, finish, etc of the cloth (*see* **4.3**).

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 subjected 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 cotton yarn used in the manufacture of the cloth shall be satisfactory in evenness and reasonably free from neps and spinning defects. The yarns shall conform to IS 171.

3.2 Cloth

The cloth shall be free from dressing and filling materials and from substances liable to cause subsequent tendering.

4 REQUIREMENTS

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

4.2 The colour fastness ratings and other requirements of cloth shall conform to those 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.

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

5 INSPECTION

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

a) Weft crack of more than two missing picks across the width of the material;

b) Prominently noticeable weft bar due to the fineness in raw material, count, twist, lustre, colour, shade, etc;

c) More than two adjustment ends running parallel, broken or missing and extending beyond 15 cm;

d) prominent selvedge defects;

e) Noticeable warp or weft float in the body;

f) Noticeable oil or other stains;

g) Noticeable cut or tear up to 3 mm in size;

h) Smash rupturing the texture of the fabric; and

j) Prominently noticeable dyeing defects.

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

6 SAMPLING

6.1 The quantity of handloom cotton fabric for school uniforms 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 1 Constructional Particulars of Handloom Cotton Fabric for School Uniforms

(*Clause* 4.1)

Sl No.	Variety No.	Count of Yarn [Cotton Count (Universal Count)]		Ends/ cm	Picks/ cm	Length m	Width cm	Weave
		Warp	weft					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	1	20 s (30 tex)	10s (59 tex)	22	18	20 or as agreed	71, 82, 92, 112 or as agreed	Plain
ii)	2	20 s (30 tex)	10s (59 tex)	25	18			
iii)	3	20 s (30 tex)	10s (59 tex)	28	20			
iv)	4	14 s (42 tex)	12s (50 tex)	18	17			Cellular
v)	5	20 s (30 tex)	14s (42 tex)	28	18			
vi)	6	30 s/2 (20 tex × 2)	10s (59 tex)	18	17			
vii)	7	14 s (42 tex)	14s (42 tex)	28	19			3/1 Twill
viii)	8	30 s/2 (20 tex × 2)	10s (59 tex)	25	14			
ix)	9	30 s/2 (20 tex × 2)	10s (59 tex)	26	16			
x)	10	30 s/2 (20 tex × 2)	10s (59 tex)	28	17			
xi)	11	40 s/2 (14.5 tex × 2)	14s (42 tex)	30	22			
Tolerance, Percent	—	± 5	± 5	± 5	± 5	—	± 2	—
Method of Test, Ref to	—	IS 3442		IS 1963		IS 1954		Visual

Table 2 Requirements of Handloom Cotton Fabric for School Uniforms

(*Clause* 4.2)

Sl No.	Characteristic	Requirement	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Colour fastness to:		
	a) Light	5 or better	IS/ISO 105-B01 or IS/ISO 105-B02
	b) Washing test 4	4 or better	IS/ISO 105-C10
ii)	Dimensional change, percent, *Max*	4.0	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 or Annex B
v)	Fiber identification	100 percent cotton	IS 667

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

(*Clauses* 6.3 *and* 6.4)

Sl No.	Lot Size	Sample Size	Permissible No. of Non-conforming Pieces	Sub-ample 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 1 200	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

6.4 Number of Tests and Criterion for Conformity

Sl No.	*Characteristic*(*s*)	*No. of Tests*	*Criterion for Conformity*
(1)	(2)	(3)	(4)
i)	Count of yarn, ends, picks, length, width and weave	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)	Colour fastness, dimensional changes, scouring loss, *p*H 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 suitably marked or labelled with the following information:

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 preferably be packed in bales or cases in conformity with the procedure laid down either in IS 1347 or IS 293.

ANNEX A

(*Clause* 2)

LIST OF REFERRED STANDARDS

IS No.	*Title*
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 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 1070 : 2023	Reagent grade water specification (*fourth 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/ ISO 3071 : 2020	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 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 (*second revision*)
IS 14466 : 1997/ ISO 8498 : 1990	Fabrics — Description of defects — Vocabulary

ANNEX B

(*Table 2*)

METHOD FOR DETERMINATION OF *p*H VALUE OF AQUEOUS EXTRACT

B-1 APPARATUS

B-1.1 Erlenmeyer Flask

B-1.2 Reflux Condenser

B-2 REAGENTS

B-2.1 Distilled Water — *see* IS 1070

B-2.2 Indicator *p*H Papers

B-3 PROCEDURE

B-3.1 Draw from each piece in the test sample at least two test specimens each weighing 5 g.

B-3.2 Rinse the Erlenmeyer flask with distilled water. Take one test specimen and cut it into small bits. Put the bits in the Erlenmeyer flask and add to this 50 ml of distilled water. Boil the contents for one hour under the reflux condenser. Stopper the flask and cool the contents. Decant the supernatant extract in a test tube.

B-3.3 Take the *p*H indicator paper. Dip it in the extract and compare the colour of the moistened indicator paper with those printed on the booklet or dispenser containing the indicator paper. Designate the number, written on a particular colour shade with which the moistened indicator paper matches, as *p*H of the extract.

B-3.4 Similarly test the remaining test specimen(s).

B-4 REPORT

Report the *p*H value of the extract as determined above.

ANNEX C

(*Foreword*)

COMMITTEE COMPOSITION

Handloom and Khadi Sectional Committee, TXD 08

Organization	*Representative(s)*
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