

वस्त्रादि — हथकरघा निर्मित विस्कोस
स्टेपल फाइबर से बना कमीज का
कपड़ा — विशिष्टि

(दूसरा पुनरीक्षण)

**Textiles — Handloom Viscose Staple
Fibre Shirting — Specification**
(Second Revision)

ICS 59.080.30

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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 1962 and was subsequently revised in 1991. 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 E.

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 VISCOSE STAPLE FIBRE
SHIRTING — SPECIFICATION***(Second Revision)***1 SCOPE**

1.1 This standard prescribes constructional particulars and other requirements for six varieties of handloom viscose staple fibre shirting.

1.2 This standard does not specify the general appearance, feel, finish, etc.

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 ATMOSPHERIC CONDITIONS FOR TESTING

Test specimens may be conditioned and tested in the prevailing atmosphere for determining the conformity of the cloth to this standard. However, in all cases of disputes, specimens shall be conditioned and tested in the standard atmosphere as specified in the Indian Standards referred on test methods.

4 MANUFACTURE**4.1 Yarn**

The viscose staple fibre yarn used in manufacture of cloth shall be such that the cloth produced complies with the requirements of this standard.

4.2 The cloth of Varieties 1, 3, 5 and 6 shall be of plain weave and of Varieties 2 and 4 in 2/2 twill weave. It shall be free from substances liable to cause subsequent tending.

5 REQUIREMENTS

5.1 The cloth shall conform to the requirements specified in Table 1.

5.2 The cloth shall also conform to the requirements specified in Table 2.

5.3 Dimensions

Length and width of the cloth when determined in

accordance with IS 1954 shall be as agreed to between the buyer and the seller or as declared by the seller subject to the tolerances specified in the Government of India, Ministry of Commerce and Industry Notification No. S. 0. 2937 dated 20 September 1962 issued under *Trade and Merchandise Marks Act*, 1958 (43 of 1958) (see Annex B).

5.4 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.

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

6 INSPECTION

6.1 The cloth when visually inspected should be free from the major flaws listed at Annex C.

6.1.1 The number of permissible major flaws per piece shall be as agreed to between the buyer and the seller.

7 MARKING

7.1 The product shall be suitably marked with the following information:

- a) Name of the material;
- b) Length (m) and width (cm);
- c) Variety and GSM (g/m²);
- d) Indication of the source of manufacture; and
- e) 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.

**Table 1 Constructional Particulars and Breaking Load Requirements for
Handloom Viscose Staple Fibre Shirting**

(Clause 5.1)

SI No.	Variety No.	Count of Yarn : Universal Count (Cotton Count)		Ends/dm	Pick/dm	Mass g/m ²	Breaking Load on 5 cm × 20 cm Strips	
		Warp	Weft				Warp way	Weft way
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	1	15 tex × 2 (40s/2)	15 tex × 2 (40s/2)	190	190	120	352	352
ii)	2	15 tex × 2 (40s/2)	15 tex × 2 (40s/2)	205	190	120	372	352
iii)	3	15 tex × 2 (40s/2)	15 tex × 2 (40s/2)	252	190	135	440	352
iv)	4	15 tex × 2 (40s/2)	15 tex × 2 (40s/2)	276	276	170	490	490
v)	5	9.6 tex × 2 (60s/2)	20 tex (30s)	252	276	110	372	392
vi)	6	9.6 tex × 2 (60s/2)	9.6 tex × 2 (60s/2)	330	236	110	330	314
Tolerance, percent	—	± 5	± 5	± 5	± 5	± 5	- 5 on average value and - 15 on individual reading	
Method of Test, Ref to	—	IS 3442		IS 1963		IS 1964 or Annex D	IS 1969 (Part 1)	

Table 2 Other Requirements for Handloom Viscose Staple Fibre Shirting

(Clause 5.2)

SI No.	Characteristic	Requirement	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Dimensional change, percent, <i>Max</i> a) Warp way b) Weft way	10 4	IS 1299
ii)	Scouring loss, percent, <i>Max</i>	2	IS 1383
iii)	Fibre identification, <i>Min</i>	100 percent viscose	IS 667
iv)	Colour fastness (For dyed fabrics only): a) Light (Change in colour) b) Washing Test A(1): 1) Change in colour 2) Staining on fabric c) Organic solvent	5 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-X05

8 PACKING

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

9 SAMPLING**9.1 Lot**

The quantity of cloth of the same variety delivered

to one buyer against one despatch note shall constitute a lot.

9.2 The conformity of the lot to the various requirements specified in the standard shall be determined on the basis of tests carried out on the samples selected from the lot.

9.3 Unless otherwise agreed, the number of pieces selected at random for inspection shall be in accordance with Table 3.

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

(Clauses 9.3 and 9.4)

Sl No.	Lot Size	Sample Size	Permissible Number of Non-conforming Items	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 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

9.3.1 For selection of samples at random from the lot, procedure given in IS 4905 may be followed.

9.4 Number of Samples and Criteria for Conformity

It shall be as follows:

Sl No.	Characteristics	Number of Samples	Criterion for Conformity
(1)	(2)	(3)	(4)
i)	Count, ends, picks, mass length, width and visual inspection	According to col (3) of Table 3	Number of non-conforming pieces shall not exceed the corresponding number given in col (4) of Table 3
ii)	Fibre identification, dimensional change, colour fastness, scouring loss and breaking load	According to col (5) of Table 3	All the test pieces shall meet the requirement

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS 293 : 1980	Code of seaworthy packaging of cotton yarn and cloth (<i>third revision</i>)	IS 1969 (Part 1) : 2018	Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>fourth revision</i>)
IS 667 : 1981	Methods for identification of textile fibres (<i>first revision</i>)		
IS 1299 : 1984	Method for determination of dimensional changes on washing of fabrics woven from rayon and synthetic fibres (<i>second revision</i>)	IS 3442 : 2023	Textiles — Method for determination of crimp and linear density of yarn removed from fabric (<i>second revision</i>)
IS 1347 : 1972	Specification for inland packaging of cotton cloth and yarn (<i>first revision</i>)	IS 4905 : 2015/ ISO 24153 : 2009	Random sampling and randomization procedures (<i>first revision</i>)
IS 1383 : 1977	Methods for determination of scouring loss in grey and finished cotton textile materials (<i>first revision</i>)	IS/ISO 105-B01 : 2014	Textiles — Tests for colour fastness: Part B01 Colour fastness to light: Daylight
IS 1954 : 1990	Determination of length and width of woven fabrics — Methods (<i>second revision</i>)	IS/ISO 105-B02 : 2014	Textiles — Tests for colour fastness: Part B02 Colour fastness to artificial light: Xenon arc fading lamp test
IS 1963 : 1981	Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)	IS/ISO 105-C10 : 2006	Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda
IS 1964 : 2001	Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics (<i>second revision</i>)	IS/ISO 105-X05 : 1994	Textiles — Tests for colour fastness: Part X05 Colour fastness to organic solvents

ANNEX B*(Clause 5.3)***EXTRACTS FROM THE GOVERNMENT OF INDIA, MINISTRY OF COMMERCE AND
INDUSTRY (TRADE AND MERCHANDISE MARKS) NOTIFICATION NO. S.O. 2937
DATED 20 SEPTEMBER 1962****B-1** A trade description of length of man-made fibre spun and filament yarn piece goods:

- a) In stamped as of length 10 metres and below the stamped shall not be greater or less than the actual length by more than 2 percent; and
- b) In piece stamped as of length above 10 metres the stamped length shall not be greater or less than the actual length by more than 1 percent.

B-2 A trade description of width of man-made fibre spun and filament yarn piece goods:

- a) In pieces stamped width shall not be greater or less than actual width at any point by more than 3 percent provided that the average width of the pieces in question is equal to or exceeds 98 percent of the stamped width.

ANNEX C*(Clause 6.1)***LIST OF MAJOR FLAWS**

- a) One or more ends missing in the body of the material throughout its length, more than three ends missing at a place and running over 60 cm, or prominently noticeable double ends running throughout the piece;
- b) Undressed snarls noticeable over a length exceeding 5 percent of the length of the piece;
- c) Smash definitely rupturing the texture of the fabric;
- d) Hole, cut or tear;
- e) Read marks prominently noticeable over a length exceeding 5 percent of the piece;
- f) Defective or damaged selvedge noticeable over a length exceeding 5 percent of the length of the piece;
- g) Skewing of weft;
- h) Weft crack or two or more missing picks across the width of the fabric;
- j) Warp or weft bar due to difference in raw material, count, twist, lustre, colour, shade or spacing of adjacent groups of yarns (starting mark);
- k) More than two adjacent ends running parallel, broken or missing and extending beyond 10 cm;
- m) Noticeable warp or weft float in the body of the fabric;
- n) Noticeable oil or other stain in the fabric;
- p) Oily weft in the fabric;
- q) Prominently noticeable slub;
- r) Conspicuous broken pattern;
- s) Gout due to foreign matter, usually lint or waste, woven into the fabric;
- t) Prominent selvedge defect;
- u) Significant shading or listing having a gradual change in tone or depth of shade (excluding in selvedge);
- v) Coloured flecks;
- w) Blurred or dark patch;
- y) Patchy, streaky or uneven dyeing;
- z) Dye bar; and
- aa) Fuzzy appearance.

ANNEX D*(Table 1)***METHOD FOR DETERMINATION OF MASS OF FABRIC**

D-1 Cut four specimens of 100 mm × 100 mm each from a sample. Condition all the specimen a desiccator charged with saturated solution of sodium nitrate at 27 °C ± 2 °C for a period of 24 hours. Remove all the specimens from the desiccator and

immediately determine their collective mass in a weighing balance to the nearest milligram.

D-2 Calculate the mass of the fabric in g/m².

ANNEX E

(Foreword)

COMMITTEE COMPOSITION

Handloom and Khadi Sectional Committee, TXD 08

<i>Organization</i>	<i>Representative(s)</i>
Weavers Service Centre, Delhi	SHRI VISHESH NAUTIYAL (Chairperson) SHRI VIKAS KUMAR (<i>Alternate</i>)
Baster Adimjati Sewak Sangh, Baster	SHRI SUMIT DAS SHRI AMIT DAS (<i>Alternate</i>)
Central Pollution Control Board, New Delhi	SHRI P. K. MISHRA SHRI RISHABH SRIVASTAV (<i>Alternate</i>)
Central Reserve Police Force, New Delhi	SHRI D. P. UPADHYAY SHRI SANJEEV KUMAR SINGH (<i>Alternate</i>)
Department of Handlooms & Textiles, Chennai	SHRI T. P. RAJESH DR K. KARNAN (<i>Alternate</i>)
Gandhigram Rural Institute, Dindigul	REPRESENTATIVE
Haryana Khadi Gramodyog Sangh, Karnal	SHRI PAWAN GARG SHRI R. S. YADAV (<i>Alternate</i>)
ICAR – Central Institute for Research on Cotton Technology, Mumbai	DR SUJATA SAXENA DR A. S. M. RAJA (<i>Alternate</i>)
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 (<i>Alternate</i>)
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Karnatka Khadi Gramodyog Samyuktha Sangha, Hubli	SHRI K. V. PATTAR SHRI SHIVANANDA S. (<i>Alternate</i>)
Khadi & Village Industries Commission, New Delhi	SHRI P. NALLAMUTHU SHRI RAM NARAYAN (<i>Alternate</i>)
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Kshetriya Khadi Gramodyog Samiti, Dausa	SHRI R. K. SINGH
Madhya Bharat Khadi Sangh, Gwalior	SHRIMATI NEELU MEKLE SHRI HARISH MEKLE (<i>Alternate</i>)
Mahatma Gandhi Institute for Rural Industrialization, Wardha	REPRESENTATIVE

<i>Organization</i>	<i>Representative(s)</i>
Metpalli Khadi Gramodyog Pratisthan, Metpalli	SHRI G. MADHAV
Ministries of Defence (DGQA), New Delhi	SHRI ARVIND COMPATHANE SHRI N. SENTHIL KUMAR (<i>Alternate</i>)
Ministries of Health, New Delhi	REPRESENTATIVE
National Handloom Development Corporation Ltd, Gautam Budh Nagar	DR SAKTHIVEL PERUMALSAMY SHRI JITENDRA TOLAMBIYA (<i>Alternate</i>)
Northern Railways, New Delhi	SHRI SUDHANSHU KUMAR GUPTA
Northern India Textile Research Association, Ghaziabad	DR M. S. PARMAR SHRI SANJEEV SHUKLA (<i>Alternate</i>)
Office of The Development Commissioner for Handlooms, New Delhi	SHRI SIDDHARTH SINGH SHRI VINAY KUMAR (<i>Alternate</i>)
Rastriya Khadi Gramodyog Federation, Moradabad	SHRI ANIL KUMAR SINGH SHRI KULDEEP SINGH (<i>Alternate</i>)
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Textiles Committee, New Delhi	SHRI KARTIKAY DHANDA SHRIMATI SHILPI CHAUHAN (<i>Alternate</i>)
The Cotton Textiles Export Promotion Council (TEXPROCIL), Mumbai	DR SIDDHARTHA RAJAGOPAL SHRI RAJESH SATAM (<i>Alternate</i>)
The Handloom Export Promotion Council, Chennai	DR M. SUNDAR EXPORT PROMOTION OFFICER (<i>Alternate</i>)
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Member Secretary
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