

वस्त्रादि — हथकरघा सूती शर्टिंग —
विशिष्टि

(दूसरा पुनरीक्षण)

Textiles — Handloom Cotton
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 first published in 1957 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) All amendments have been incorporated;
- c) Marking clause has been modified;
- d) References to standards have been updated;
- e) *pH* value of aqueous extract has been incorporated; and
- f) Sampling plan has been incorporated.

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 SHIRTING —
SPECIFICATION**

(*Second Revision*)

1 SCOPE

1.1 This standard prescribes the constructional particulars and other requirements of handloom cotton shirting, bleached, dyed, striped, checked or printed.

1.2 This standard does not specify the general appearance, feel, finish or weaving and printing pattern, etc of the shirting.

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 Constructional Particulars

Construction particulars shall conform to those given in [Table 1](#). These are obtainable by using yarn conforming to IS 171.

4 REQUIREMENTS

The requirements of shirting shall conform to those given in [Table 2](#).

5 INSPECTION

5.1 The shirting when visually inspected should be reasonably free from the following defects (*see* IS 14466):

- a) Weft crack of more than 2 missing picks across the width of the material;

- b) Prominently noticeable weft bar due to the difference in raw material, count, twist, lustre, colour, shade or pick spacing of adjacent groups of weft yarn;
- c) More than two adjacent ends running parallel, broken or missing and extending beyond 15 cm;
- d) Prominent selvage defect;
- e) Noticeable warp or weft float in the body of the material;
- f) Noticeable oil or other stain in the material;
- g) Noticeable hole, cut or tear up to 3 mm in size in the body of the fabric;
- h) Conspicuous broken pattern;
- j) Prominently noticeable printing or dyeing defect;
- k) Smash definitely rupturing the texture of the material; and
- m) Extensive printing or dyeing defect.

6 SAMPLING

6.1 Lot

The quantity of handloom cotton shirting of the same variety, width and colour delivered to a buyer at a time shall constitute a lot.

6.2 To ascertain the conformity of the lot to the requirements of this standard, sample 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 Shirting*(Clause 3.1)*

Sl No.	Variety No.	Count of Yarn		Ends/dm	Picks/dm
		Warp	Weft		
(1)	(2)	(3)	(4)	(5)	(6)
i)	1	20s/2 (or 30 tex × 2)	18s (or 33 tex)	160	140 (double)
ii)	2	20s/2 (or 30 tex × 2)	20s (or 30 tex)	170	140 (double)
iii)	3	20s/2 (or 30 tex × 2)	20s (or 30 tex)	190	200
iv)	4	20s/2 (or 30 tex × 2)	20s/2 (or 30 tex × 2)	160	145
v)	5	20s (or 30 tex)	18s (or 33 tex)	200	170
vi)	6	20s (or 30 tex)	20s (or 30 tex)	130 (double)	126 (double)
vii)	7	20s (or 30 tex)	20s (or 30 tex)	165 (double)	173 (double)
viii)	8	20s (or 30 tex)	30s (or 20 tex)	220	205
ix)	9	26s (or 23 tex)	26s (or 23 tex)	220	220
x)	10	30s/2 (or 20 tex × 2)	30s/2 (or 20 tex × 2)	190	170
xi)	11	30s (or 20 tex)	30s (or 20 tex)	240	220
xii)	12	36s/2 (or 16 tex × 2)	20s (or 30 tex)	200	180
xiii)	13	36s/2 (or 16 tex × 2)	20s (or 30 tex)	260	250
xiv)	14	40s/2 (or 15 tex × 2)	20s (or 30 tex)	280	250
xv)	15	40s/2 (or 15 tex × 2)	30s (or 20 tex)	240	190
xvi)	16	40s/2 (or 15 tex × 2)	30s (or 20 tex)	240	200
xvii)	17	40s/2 (or 15 tex × 2)	40s (or 15 tex)	240	225
xviii)	18	40s (or 15 tex)	40s (or 15 tex)	280	280
xix)	19	40s (or 15 tex)	40s (or 15 tex)	320	320
xx)	20	60s/2 (or 10 tex × 2)	60s/2 (or 10 tex × 2)	280	220
xxi)	21	60s/2 (or 10 tex)	40s (or 15 tex)	380	330
xxii)	22	80s/2 (or 7.4 tex × 2)	40s (or 15 tex)	330	330
xxiii)	23	80s/2 (or 7.4 tex)	80s/2 (or 7.4 tex)	440	470
Tolerance	—	± 5 percent	± 5 percent	± 5 Percent	± 5 percent
Method of Test, Ref to	—	IS 1315		IS 1963	

Table 2 Requirements of Handloom Cotton Shirting*(Clause 4)*

Sl No.	Characteristic	Requirement	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Dimensional changes, percent, <i>Max</i>	2.5	IS 2977
ii)	Scouring loss, percent, <i>Max</i>	2.5	IS 1383
iii)	Colour fastness rating:		
	a) Light	5 or better	IS/ISO 105-B01 or IS/ISO 105-B02
	b) Washing	4 or better	IS/ISO 105-C10
iv)	Length	As agreed	IS 1954
v)	Width	As agreed (- 2 percent tolerance)	IS 1954
vi)	pH value of aqueous extract	6.0 to 8.5	IS 1390
vii)	Fibre identification	100 percent cotton	IS 667

Table 3 Sample Size and Permissible Number of Non-Conforming Pieces*(Clause 6.3 and 6.4)*

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 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 Criteria for Conformity

<i>Sl No.</i>	<i>Characteristic(s)</i>	<i>Number of Tests</i>	<i>Criteria for Conformity</i>
(1)	(2)	(3)	(4)
i)	Visual inspection, ends, picks, count, length and width	According to col1 (3) of Table 3	Number of non-conforming pieces shall not exceed the corresponding number given in col1 (4) of Table 3
ii)	Dimensional change, colour fastness, fibre identification and scouring loss	According to col1 (5) of Table 3	All the pieces shall meet the requirement

7 MARKING

7.1 Each shirting 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 of shirting;
- d) Count of warp and weft yarn;
- e) The words 'fast colour' in case of dyed and printed shirting;
- f) Indication of the source of manufacture; and
- g) 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 shirting 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

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS/ISO 105-B01 : 2014	Textiles — Tests for colour fastness: Part B01 Colour fastness to light: Daylight	IS 1347 : 1972	Specification for inland packaging of cotton cloth and yarn (<i>first 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 1383 : 2023	Methods for determination of scouring loss in grey and finished cotton textile materials (<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 1390 : 2022/ ISO 3071 : 2020	Textiles — Determination of pH of aqueous extract (<i>third revision</i>)
IS 171 : 1993	Textiles — Ring spun grey cotton yarn for weaving — Specification (<i>fourth revision</i>)	IS 1954 : 2024/ ISO 22198 : 2006	Textiles — Fabrics — Determination of width and length (<i>third revision</i>)
IS 293 : 1980	Code for seaworthy packaging of cotton yarn and cloth (<i>third revision</i>)	IS 1963 : 1981	Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)
IS 667 : 1981	Methods for identification of textile fibres (<i>first revision</i>)	IS 2977 : 1989	Fabrics (other than wool) — Method for determination of dimensional changes on soaking in water (<i>first revision</i>)
IS 1315 : 1977	Method for determination of linear density of yarns spun on cotton system (<i>first revision</i>)	IS 14466 : 1997/ ISO 8498 : 1990	Fabrics — Description of defects — Vocabulary

To access Indian Standards click on the link below:

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ANNEX B

(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>)
Center of Excellence for Khadi (COEK)-NIFT, New Delhi	REPRESENTATIVE
Central Pollution Control Board, New Delhi	SHRI P. K. MISHRA SHRI RISHABH SRIVASTAV (<i>Alternate</i>)
CRPF, New Delhi	SHRI D. P. UPADHYAY SHRI SANJEEV KUMAR SINGH (<i>Alternate</i>)
Department of Handlooms & Textiles, Chennai	SHRI THIRU R. RAGHUNATH SHRI THIRU K. MUNUSAMY (<i>Alternate</i>)
Fabindia, New Delhi	REPRESENTATIVE
Flag Foundation of India, New Delhi	SHRI ASHIM KOHLI
Gandhigram Rural Institute, Dindigul	DR B. SENTHIL KUMAR
Haryana Khadi Gramodyog Sangh, Karnal	SHRI PAWAN GARG SHRI R. S. YADAV (<i>Alternate</i>)
ICAR – Central Institute for Research on Cotton Technology, Mumbai (CIRCOT)	DR SUJATA SAXENA DR A. S. M. RAJA (<i>Alternate</i>)
Indian Institute of Handloom Technology, Jodhpur	DR J. SIVAGNANAM
Indian Institute of Handloom Technology, Salem	DR P. THENNARASU
Indian Institute of Handloom Technology, Varanasi	DR AMIN HIRENBHAI NAVINBHAI SHRI JITENDER TAK (<i>Alternate</i>)
Indian Institute of Technology, Delhi	DR BIPIN KUMAR DR WAZED ALI (<i>Alternate</i>)
Indo Tibetan Border Police, New Delhi	SHRI UTTAM KUMAR SHRI ANAND KUMAR (<i>Alternate</i>)
Jan Sewa Ashram, Aligarh	SHRI R. K. SHARMA SHRI AKHILESH KUMAR AWASTHI (<i>Alternate</i>)
Karnatka Khadi Gramodyog Samyuktha Sangha, Hubli	SHRI K. V. PATTAR SHRI SHIVANANDA S. MATHAPATI (<i>Alternate</i>)
Khadi and Village Industries Commission, Mumbai	SHRI VIJAYSRIDHAR DR SENTIL KUMAR C. B. (<i>Alternate</i>)
Khadi Dyers & Printers, Mumbai	SHRI D. N. BHATT SHRI V. D. JOSHI (<i>Alternate</i>)

<i>Organization</i>	<i>Representative(s)</i>
Khadi Gramodyog Mandal, Rampur	SHRI RAKESH CHAUDHARY SHRI PRINCE CHAUDHARY (<i>Alternate</i>)
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	SHRI MAHESH KUMAR DR TAPAN RANJAN KAR (<i>Alternate</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 PERUMAL SAMY SHRI JITENDRA TOLAMBIYA (<i>Alternate</i>)
Northern India Textile Research Association, Ghaziabad	DR M. S. PARMAR SHRI SANJEEV SHUKLA (<i>Alternate</i>)
Northern Railways, New Delhi	SHRI SANJEEV KUMAR JAIN SHRI RAJESH KUMAR (<i>Alternate</i>)
Office of the Development Commissioner for Handlooms, New Delhi	SHRI SIDDHARTH SINGH SHRI VINAY KUMAR (<i>Alternate</i>)
Orient Processes Pvt Ltd, Guwahati	SHRI ROBIN CHANDRA GOSWAMI SHRI RAJ BURAGOHAIN (<i>Alternate</i>)
Rastriya Khadi Gramodyog Federation, Moradabad	SHRI ANIL KUMAR SINGH SHRI KULDEEP SINGH (<i>Alternate</i>)
Swastik Gramodyog Samiti, Delhi	SHRI M. L. PATHAK SHRI ABHISHEK DIXIT (<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 SHRI N. SREEDHAR (<i>Alternate</i>)
The Tamil Nadu Handloom Weavers Cooperative Society Ltd, Chennai	SHRI T. N. VENKATESH SHRI K. KATHIRESAN (<i>Alternate</i>)
BIS Directorate General	SHRI J. K. GUPTA, SCIENTIST 'E'/DIRECTOR AND HEAD (TEXTILES) [REPRESENTING DIRECTOR GENERAL (<i>Ex-officio</i>)]

Member Secretary
SHRI SWAPNIL
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Amendments Issued Since Publication

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