

IS 179 : 2009
(Reaffirmed 2014)

(Reaffirmed 2018)

भारतीय मानक
वस्त्रादि — सूती दोसूती — विशिष्टि
(तीसरा पुनरीक्षण)

Indian Standard
TEXTILES — COTTON DOSUTI — SPECIFICATION
(*Third Revision*)

ICS 59.060.10; 59.080.30

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

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Price Group 3

Man-made Fibres, Cotton and Their Products Sectional Committee, TXD 31

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Man-made Fibres, Cotton and Their Products Sectional Committee had been approved by the Textiles Division Council.

This standard was originally published in 1951 was subsequently revised in 1965 and 1977. This standard has now been revised to incorporate the five amendments that have been issued to the earlier version of this standard. Opportunity has also been taken to incorporate the following changes:

- a) *pH* value has been modified as 6.0 to 8.5, and
- b) Requirement for chromium and iron content has been deleted.

This standard is based on IND/TC/0158 (C) 'Dosuti', issued by the Ministry of Defence, Government of India.

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

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 : 1960 'Rules for rounding off numerical values (*revised*)'. 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 — COTTON DOSUTI — SPECIFICATION
(Third Revision)

1 SCOPE

1.1 This standard prescribes constructional particulars and other requirements of cotton dosuti, grey, scoured, bleached or dyed.

1.2 This standard does not specify the general appearance, feel, shade, etc, of the cloth (*see also 5.3*).

2 REFERENCES

The following standards contain provision which through reference in this text constitute provision 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 below:

<i>IS No.</i>	<i>Title</i>
293 : 1980	Code for seaworthy packaging of cotton yarn and cloth (<i>third revision</i>)
686 : 1985	Methods for determination of colour fastness of textile materials to daylight (<i>first revision</i>)
1347 : 1972	Specification for inland packaging of cotton cloth and yarn (<i>first revision</i>)
1383 : 1977	Methods for determination of scouring loss in grey and finished cotton textile materials (<i>first revision</i>)
1390 : 1983	Methods for determination of pH value of aqueous extracts of textile materials (<i>first revision</i>)
1954 : 1990	Determination of length and width of woven fabrics — Methods (<i>second revision</i>)
1963 : 1981	Methods for determination of threads per unit in length woven fabrics (<i>second revision</i>)
1964 : 2001	Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics (<i>second revision</i>)
1967 : 1961	Methods for estimation of residual starch in cotton fabrics after desizing

<i>IS No.</i>	<i>Title</i>
1969 : 1985	Methods for determination of breaking strength and elongation of woven textile fabrics (<i>second revision</i>)
2454 : 1985	Methods for determination of colour fastness of textile materials to artificial light (Xenon lamp) (<i>first revision</i>)
2977 : 1989	Fabrics (other than wool) — Method for determination of dimensional changes on soaking in water (<i>first revision</i>)
3361 : 1979	Method for determination of colour fastness of textile materials to washing : Test 2 (<i>first revision</i>)
3919 : 1966	Methods for sampling of cotton fabrics for determination of physical characteristics
5463 : 1969	Methods for sampling of cotton fabrics for chemical tests

3 TERMINOLOGY

For the purpose of this standard, the following definition shall apply.

3.1 Dosuti — An Indian term for a matt fabric where two warp threads are working in - pairs and two weft threads are placed in the same shed.

4 MANUFACTURE

4.1 Yarn

The cotton yarn used in the manufacture of the cloth shall be satisfactory in evenness and reasonably free from neps and spinning defects.

4.2 Cloth

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

4.2.1 The cloth shall be dyed with suitable dyes to shades agreed to between the buyer and the seller. However for black shades, sulphur or aniline dyes shall not be used. Banned dyes shall not be used.

4.2.2 The bleached cloth shall have a full bleach.

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NOTES

- 1 The cloth shall be free from blueing or optical whitening agent, if required by the buyer.
- 2 Chlorine shall not be used for bleaching.

4.2.3 The cloth when visually examined shall be reasonably free from spinning, weaving and processing defects.

5 REQUIREMENTS

5.1 The constructional particulars of the cloth shall conform to those specified in Table 1.

5.2 The colour fastness ratings and other requirements of the cloth shall conform to those specified in Table 2.

5.3 Sealed Sample

If, in order to illustrate 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 sealed sample in such respects.

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

6 MARKING

6.1 The cloth shall be marked with the following:

- a) Name of the material;
- b) Length and width of the piece;

- c) Manufacturer's name, initials and trade-mark, if any; and
- d) Year of manufacture.

6.1.1 BIS Certification Marking

The product may also be marked with Standard Mark.

6.1.2 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

6.2 At the other end of the piece, the cloth shall be marked with an identification mark.

7 PACKING

The cloth shall be packed in bales or cases in conformity with the procedures laid down in IS 1347 or in IS 293, as required.

8 SAMPLING

8.1 The scale of sampling and criteria for conformity as given in IS 3919 shall be followed in respect of physical characteristics, namely, ends and picks, mass, breaking load, length and width.

8.2 The scale of sampling and criteria for conformity as given in IS 5463 shall be followed in respect of the chemical characteristics, namely, colour fastness, scouring loss, pH value, shrinkage or elongation and starch content.

Table 1 Constructional Particulars of Cotton Dosuti
(Clause 5.1)

Sl No.	Approximate Count of Yarn [Cotton Count (Tex)] (For Guidance Only)		Ends/cm	Picks/cm	Mass g/m ²			Breaking Load of 5.0 × 20 cm Strips (Ravelled Strip Method), Min		Length	Width	Weave
	Warp	Weft			Grey	Soured/ Bleached	Dyed	Warp N	Weft N			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
i)	14 ^s (42 tex)	10 ^s (59 tex)	12 (Double)	19	245	—	—	475	550	↑	↑	Plain weave with two warp threads working as one
ii)	14 ^s (42 tex)	10 ^s (59 tex)	13 (Double)	18	—	230	240	500	500	↑	↑	
iii)	14 ^s (42 tex)	14 ^s (42 tex)	12 (Double)	14 (Double)	245	—	—	500	550	36 or above as agreed	91, 102 or as agreed	Plain weave with two warp threads working as one and laid as one pick
iv)	14 ^s (42 tex)	14 ^s (42 tex)	13 (Double)	13 (Double)	—	230	240	525	525	↓	↓	
Tolerance, Percent	—	—	± 5	± 5	+ 5			—	—	± 2	—	
Method of Test	—	—	IS 1963	←—2.5 —→ ←—IS 1964 —→			IS 1969	IS 1954	Visual			

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

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Table 2 Other Requirements of Cotton Dosuti
(Clause 5.2)

Sl No. (1)	Characteristic (2)	Requirement (3)	Method of Test, Ref to (4)
i)	Colour fastness to:		
	a) Light (<i>see</i> Note):		
	1) Mineral khaki and olive green shades	5 or better	IS 686
	2) Other shades	4 or better	IS 2454
	b) Washing	4 or better	IS 3361
			IS 1383
ii)	Scouring loss, percent, <i>Max</i> :		(Mild method)
	a) Grey	7.5	—
	b) Scoured, bleached or dyed	2.0	—
iii)	pH value	6.0-8.5	IS 1390
			(Cold method)
iv)	Shrinkage or elongation percent, <i>Max</i>		IS 2977
	a) Bleached or dyed	4.0	—
	b) Bleached/dyed and pre-shrunk	3.0	—
v)	Starch content, percent, <i>Max</i>	0.5	IS 1967

NOTE — In case of dispute, colour fastness to light shall be determined by the method prescribed in IS 686.

ANNEXA (Foreword)

COMMITTEE COMPOSITION

Man-made Fibres, Cotton and Their Products Sectional Committee, TXD 31

<i>Organization</i>	<i>Representative(s)</i>
Textile Committee, Mumbai	SHRI P. K. MONDAL (<i>Chairman</i>) SHRI S. SHANKKARIAH (<i>Alternate</i>)
Ahmedabad Textile Industry's Research Association, Ahmedabad	SHRI C. R. PRAYAG DR S. REHMAN (<i>Alternate</i>)
Ashima Ltd, Ahmedabad	SHRI R. H. DESAI
Central Institute for Research in Cotton Technology, Mumbai	DR G. F. S. HUSSAIN DR R. P. NACHANE (<i>Alternate</i>)
Century Textiles & Industries Ltd, Mumbai	SHRI B. N. GOVIND RAO
Consumer Guidance Society of India, Mumbai	SHRI B. V. DESAI DR. S. G. BHAT (<i>Alternate</i>)
Consumer Education and Research Centre, Ahmedabad	DR MALAY R. DAVE
Directorate General of Supplies & Disposals (Inspection Wing), New Delhi	SHRI D. S. MARTOLIYA SHRI B. R. GOEL (<i>Alternate</i>)
Confederation of Indian Textile Industries (CITI), New Delhi	SHRI D. K. NAIR SHRI U. K. JOSHI (<i>Alternate</i>)
G.T.N. Textiles Ltd, Kerala	SHRI V. N. BALAKRISHNAN SHRI K. P. UMANATHAN (<i>Alternate</i>)
Indian Institute of Technology, Delhi	PROF B. L. DEOPURA PROF R. CHATTOPADHYAY (<i>Alternate</i>)
Indo Rama Textiles Ltd, Mumbai	SHRI RAKESH GOEL
Ministry of Defence (R&D), New Delhi	SHRI ASHOK YADAV SHRIMATI D. BHATTACHARYA (<i>Alternate</i>)
Office of the Textile Commissioner, Mumbai	SHRI B. A. PATEL SHRI K. RAVINDAN (<i>Alternate</i>)
Rajapalayam Mills Ltd, Rajapalayam	SHRI K. NADHAN SHRI MADHAWAN (<i>Alternate</i>)
Reliance Industries Ltd, Ahmedabad	SHRI S. P. GOMBER SHRI VINAY CHATURVEDI (<i>Alternate</i>)
Synthetic & Art Silk Mills Association, Mumbai	SHRI V. S. CHALKE
Super Spinning Mills Ltd, Coimbatore	SHRI S. RAMASUBBU SHRI KARTHIKEYAN (<i>Alternate</i>)
The Bombay Textile Research Association, Mumbai	SHRI R. N. BHARATI
The Rajasthan Spinning and Weaving Mills Ltd, Kharigram (Bhilwara)	SHRI N. K. SHRIVASTVA
The Southern India Mills' Association, Coimbatore	DR. K. SELVARAJU
The Synthetic and Art Silk Mills Research Association, Mumbai	DR ARUP K. RAKSHIT SHRIMATI MANISHA HIRA (<i>Alternate</i>)
Vardhaman Spinning and General Mills Ltd, Ludhiana	SHRI V. K. GOYAL
Veermata Jijabai Technological Institute, Mumbai	DR A. R. KHARE SHRI S. P. BORKAR (<i>Alternate</i>)
BIS Directorate General	SHRI M. S. VERMA Scientist 'F' & Head (TXD) [Representing Director General (<i>Ex-officio</i>)]

Member Secretary

SHRI J. K. GUPTA
Scientist 'C' (TXD), BIS

Bureau of Indian Standards

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