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IS : 1422 - 1983

(Reaffirmed 2000)

Indian Standard

(Reaffirmed 2014)

SPECIFICATION FOR
COTTON DUCK

(Reaffirmed 2019)

(*Third Revision*)

Third Reprint AUGUST 1998

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
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IS : 1422 - 1983
(Reaffirmed 1995)

Indian Standard

SPECIFICATION FOR COTTON DUCK

(Third Revision)

Industrial Textiles Sectional Committee, TDC 49

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(Continued on page 2)

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IS : 1422 - 1983

(Continued from page 1)

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IS : 1422 - 1983

Indian Standard
SPECIFICATION FOR
COTTON DUCK
(*Third Revision*)

0. FOREWORD

0.1 This Indian Standard (Third Revision) was adopted by the Indian Standards Institution on 26 September 1983, after the draft finalized by the Industrial Textiles Sectional Committee had been approved by the Textile Division Council.

0.2 The standard, formulated in 1959, was revised in 1970 and 1977. This third revision has been made in the light of experience gained in implementing the standard. Provisions of waterproofing and the requirements of the proofed cloth have been eliminated in this revision as these are covered in IS : 2089-1977* and IS : 6803-1972†. This revised version relates to basic fabric mainly.

0.3 Variety No. 1 of cotton duck prescribed in this standard is based on IND/TC/0201 (d) 'Specification for Duck, Cotton, 745 g/m² (22 oz); Variety No. 2 on IND/TC/0125 (b) 'Specification for Duck, Cotton, 610 g/m² (18 oz); Variety No. 3 on IND/TC/0124 (b) 'Specification for Duck, Cotton, 475 g/m² (14 oz); and Variety No. 4 on IND/TC/0202 (b) 'Specification for Duck, Cotton 340 g/m² (10 oz); issued by the Ministry of Defence, Government of India. Variety No. 5 is an alternate to Variety No. 4.

0.4 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, shall be rounded off in accordance with IS : 2-1960†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Specification for common proofed canvas/duck and paulins (tarpaulins) (*second revision*).

†Specification for special proofed canvas and duck.

‡Rules for rounding off numerical values (*revised*).

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1. SCOPE

1.1 This standard prescribes the constructional details and other particulars of five varieties of cotton duck. The cotton duck may be grey, scoured or dyed.

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

2. TERMINOLOGY

2.0 For the purpose of this standard, the following definitions shall apply.

2.1 Duck — A closely woven plain weave, strong, heavy cloth. It is used as sails, boot linings, tarpaulin, etc.

3. MANUFACTURE

3.1 Yarn — The yarn used for the manufacture of the cloth shall be satisfactory in evenness and reasonably free from neps and spinning and doubling defects.

3.2 The cloth should be free from sizing, filling and dressing materials and substance liable to cause subsequent tendering. The dyed cloth should be free from stains, streaks, patches and specks.

4. REQUIREMENTS

4.1 Constructional Particulars — The constructional particulars of grey, scoured or dyed cloth shall conform to Table 1 except the counts of yarns which are given only for the guidance of the manufacturers.

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

4.3 Sealed Sample — If, in order to illustrate or specify the general appearance, feel and such other characteristics of the cloth, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respects.

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

5. MARKING

5.1 The cloth shall be marked with the following:

- a) Manufacturer's name, initials or trade-mark;
- b) Name of the material;
- c) Variety number;

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TABLE 1 CONSTRUCTIONAL PARTICULARS OF COTTON DUCK
(Clause 4.1)

VARIETY No.	COUNT OF YARN (APPROXIMATE) (see NOTE 1)	ENDS/ cm	PICKS/ cm	MASS g/m ²	BREAKING LOAD ON 5 × 20 cm RAVELLED STRIPS, Min			LENGTH m	WIDTH cm	WEAVE
							Wetway			
					Warp	Weft				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Cotton Count (Universal Count)										
1	10s/4(59 tex × 4)	10s/6(59 tex × 6)	16	9	745	2 010	2 010	As agreed	As agreed	Plain
2	10s/3(59 tex × 3)	10s/4(59 tex × 4)	16	10	610	1 670	1 670			
3	14s/3(42 tex × 3)	10s/3(59 tex × 3) or 14s/4(42 tex × 4)	18	11	475	1 320	1 320			
4	18s/2(33 tex × 2)	18s/3(33 tex × 3)	24	14	340	930	930			
5	14s/2(42 tex × 2)	14s/2(42 tex × 2)	22	16	340	930	930			
TOLERANCE PERCENT — — ± 5 ± 5 ± 5 — — — — ± 1 —										
METHOD OF TEST — — — IS : 1963-1981* IS : 1964-1970† IS : 1969-1968‡ IS : 1954-1969§ Visual										

NOTE 1 — To convert cotton count to universal count, in tex, divide 590.5 by the cotton count.
NOTE 2 — 1 N (newton) is approximately equal to 0.102 kgf.
* Methods for determination of threads per unit length in woven fabrics (second revision).
† Methods for determination of weight per square metre and weight per linear metre of fabrics (first revision).
‡ Methods for determination of breaking load and elongation at break of woven textile fabrics (first revision).
§ Methods for determination of length and width of fabrics (first revision).

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5.1.1 The cloth may also be marked with the Standard Mark ,

5.1.2 The use of the Standard Mark is governed by the provisions of 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. PACKING

6.1 The cloth shall be packed in bales or cases in conformity with the procedure laid down either in IS : 1347-1972* or in IS : 293-1983† as required.

7. SAMPLING

7.1 For ascertaining the conformity in respect of length, width, breaking strength, mass, ends and picks, the number of tests and criteria for conformity as given in IS : 3919-1966‡ shall be followed.

7.2 For ascertaining the conformity of the material in respect of scouring loss, pH value, shrinkage or elongation, and colour fastness, the scale of sampling and criteria for conformity as given in IS : 5463-1969§ shall be followed.

*Specification for inland packaging of cotton cloth and yarn (*first revision*).

†Code for seaworthy packaging of cotton yarn and cloth (*third revision*).

‡Methods for sampling cotton fabrics for determination of physical characteristics.

§Methods for sampling of cotton fabrics for chemical tests.

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- d) Identification mark at both ends;
- e) Year of manufacture;
- f) Width and length of the piece; and
- g) Any other particulars required by the buyer or by the law or regulation in force.

TABLE 2 REQUIREMENTS FOR COTTON DOUCK
(Clause 4.2)

Sr. No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST
(1)	(2)	(3)	(4)
i)	Scouring loss, percent, <i>Max</i> :		IS : 1383-1977* (Mild method)
	Grey	5.0	
	Scoured or Dyed	2.5	
ii)	pH value (scoured or dyed)	6.0 to 8.5	IS : 1390-1983† (Cold method)
iii)	Shrinkage or elongation, percent, <i>Max</i> :		IS : 2977-1964‡
	Grey	5.0	
	Scoured or dyed	2.5	
iv)	Colour fastness (for dyed duck) to:		
	a) Light	4 or better	IS : 686-1957§ or IS : 2454-1967
	b) Washing : Test 3	4 or better	IS : 764-1979¶

*Method for determination of scouring loss in grey and finished cotton textile materials (*first revision*).

†Methods for determination of pH value of aqueous extract of textile materials (*first revision*).

‡Method for determination of dimensional changes of woven fabrics (other than wool) on soaking in water.

§Method for determination of colour fastness of textile materials to daylight.

||Method for determination of colour fastness of textile materials to artificial light (xenon lamp).

¶Method for determination of colour fastness of textile materials to washing : Test 3 (*second revision*).

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AMENDMENT NO. 1 APRIL 1987

TO

IS:1422-1983 SPECIFICATION FOR COTTON DUCK

(Third Revision)

(Page 4, clause 4.1, line 2) - Substitute
'counts and plies' for 'counts'.

[Page 5, Table 1, heading of col (2) and (3)]
- Substitute 'Count and Ply of Yarn, for 'Count of
Yarn'.

(TDC 49)

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BUREAU OF INDIAN STANDARDS**Headquarters:**

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones: 323 0131, 323 3375, 323 9402

Fax : 91 11 3234062, 91 11 3239399, 91 11 3239382

Telegrams : Manaksanstha
(Common to all Offices)**Central Laboratory:**

Plot No. 20/9, Site IV, Sahibabad Industrial Area, Sahibabad 201010

Telephone
8-77 0032**Regional Offices:**

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

323 76 17

*Eastern : 1/14 CIT Scheme VII M, V.I.P. Road, Manikotla, CALCUTTA 700054

337 86 62

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022

60 38 43

Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113

235 23 15

† Western : Manakalaya, E9, Behind Marol Telephone Exchange, Andheri (East),
MUMBAI 400093

832 92 95

Branch Offices:

*Pushpak, Nurmohamed Shaikh Marg, Khanpur, AHMEDABAD 380001

550 13 48

‡ Peenya Industrial Area, 1st Stage, Bangalore-Tumkur Road,
BANGALORE 560058

839 49 55

Gangotri Complex, 5th Floor, Bhadbhada Road, T.T. Nagar, BHOPAL 462003

55 40 21

Plot No. 62-63, Unit VI, Ganga Nagar, BHUBANESHWAR 751001

40 36 27

Kalaikathir Buildings, 670 Avinashi Road, COIMBATORE 641037

21 01 41

Plot No. 43, Sector 16 A, Mathura Road, FARIDABAD 121001

8-28 88 01

Savitri Complex, 116 G.T. Road, GHAZIABAD 201001

8-71 19 96

53/5 Ward No. 29, R.G. Barua Road, 5th By-lane, GUWAHATI 781003

54 11 37

5-8-56C, L.N. Gupta Marg, Nampally Station Road, HYDERABAD 500001

20 10 83

E-52, Chitaranjan Marg, C-Scheme, JAIPUR 302001

37 29 25

117/418 B, Sarvodaya Nagar, KANPUR 208005

21 68 76

Seth Bhawan, 2nd Floor, Behind Leela Cinema, Naval Kishore Road,
LUCKNOW 226001

23 89 23

NIT Building, Second Floor, Gokulpat Market, NAGPUR 440010

52 51 71

Patliputra Industrial Estate, PATNA 800013

26 23 05

Institution of Engineers (India) Building 1332 Shivaji Nagar, PUNE 411005

32 36 35

T.C. No. 14/1421, University P.O. Palayam, THIRUVANANTHAPURAM 695034

6 21 17

*Sales Office is at 5 Chowringhee Approach, P.O. Princep Street,
CALCUTTA 700072

27 10 85

† Sales Office is at Novelty Chambers, Grant Road, MUMBAI 400007

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‡ Sales Office is at 'F' Block, Unity Building, Narashimaraja Square,
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AMENDMENT NO. 2 NOVEMBER 1989
TO
IS : 1422 - 1983 SPECIFICATION FOR COTTON DUCK
(Third Revision)

(This amendment is being issued to specify that the number of plies of the plied yarn are mandatory; however, the count of single yarn is approximate and given for guidance only.)

(*Page 4, clause 4.1*) (*see also* Amendment No. 1) — Substitute the following for the existing clause:

'4.1 Constructional Particulars — The constructional particulars of grey, scoured or dyed cloth shall conform to Table 1. The count of single yarn is approximate and given for the guidance of the manufacturers. The number of plies, however, shall not be changed.'

(*Page 5, Table 1*) — Insert the following Note 3 in Table 1:

'Note 3 — The count of single yarn is approximate and given for the guidance of the manufacturers. The number of plies, however, shall not be changed.'

(TDC 49)

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AMENDMENT NO. 3 OCTOBER 1992
TO
IS 1422 : 1983 SPECIFICATION FOR COTTON DUCK
(Third Revision)

(Page 4, clause 1.2) — Insert the following new clause after 1.2:

'1.3 The cotton duck covered under this specification is not suitable for belting.'

(TXD 24)

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AMENDMENT NO. 4 MAY 2002
TO
IS 1422 : 1983 SPECIFICATION FOR COTTON DUCK
(Third Revision)

(Page 6, clause 5.1(e)) — Substitute 'Month and year of manufacture,' for the existing.

(Page 6, Table 2, title) — Substitute 'DUCK' for 'DOUCK'.

(Page 7, clause 6.1) — Substitute the following for the existing:

'6.1 The cloth shall be packed in bales or cases or rolls or pellets in conformity with the procedure laid down either in IS 1347 or IS 293 as required. The package thus obtained shall also be marked with name and full address of the manufacturer.'

(TX 30)

Reprography Unit, BIS, New Delhi, India

