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Specification No. IND.TC 3038



GOVERNMENT OF INDIA
MINISTRY OF DEFENCE

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SPECIFICATION

ON

BLENDED FABRIC POLYESTER & COTTON (67:33)

Undyed/Dyed

FOR SUPPLY DROPPING PARACHUTES

(DS CAT PART No: NIV)

ISSUED BY

THE CONTROLLER
CONTROLLERATE OF QUALITY ASSURANCE
TEXTILES AND CLOTHING,
POST BOX NO. 294
KANPUR - 203004

PRICE: Rs.

YEAR: 2015

QA(TSC) Kanpur letter No. G/8003/C2/TV-3 dt. 29.06.2016.

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0.0 FOREWORD

- 0.1 This specification containing 08 No. of pages, has been prepared by Controller, Controllerate of Quality Assurance (Textile & Clothing), Post Box No. 294, Kanpur on behalf of the Director General Quality Assurance, Ministry of Defence, New Delhi.
- 0.2 This specification is the conversion of technical particulars of Appendix 'A' of Specification. No. IND/TC/2694.
- 0.3 This specification shall be used for, procurement, manufacture and Quality Assurance of the items covered by this specification.
- 0.4 The Quality Assurance Authority for the store covered by this specification is the Controller, Controllerate of Quality Assurance, Textiles & Clothing, Post Box No. 294, Kanpur – 208001. Enquiries regarding this specification related to technical particulars shall be referred to Q A authority mentioned in the Tender or contract.
- 0.5 Any deviation from this specification will not be resorted to without the express written sanction of the Q A authority viz. the Controller, Controllerate of Quality Assurance, Textiles & Clothing, Post Box No. 294, Kanpur – 208001 or his authorized representative.
- 0.6 This specification is liable to amendment at any time and therefore is applicable only to specific enquiry made at any time. For any subsequent enquiry, afresh copy of the specification is to be obtained.
- 0.7 Copies of any reference documents such as specification/ drawing can be obtained from AHSP or from respective agencies.
- 0.8 The store must conform in all respects with this specification and other particulars issued with it.

1.0 SCOPE

- 1.1 This specification caters the requirements of Blended Fabric Polyester & Cotton (67:33). The fabric used in the fabrication of Parachutes Supply Dropping 8.5 M.

2.0 RELATED SPECIFICATIONS AND DOCUMENTS

- 2.1 Reference is made in this specification to:-

S.No	Specification	Material Particulars
1.	IS:6359-1971 RA-2008	Methods for conditioning of textiles
2.	IS:1954-1990 RA-2007	Methods for determination of length and width of woven fabrics
3.	IS:3416: 1988 RA-2008	Methods for Quantitative Chemical Analysis of Binary Mixtures of Polyester Fibres With Cotton or Regenerated Cellulose - Part 1 : Sulphuric Acid Method

4.	IS:1963-2004 Ra-2008	Methods for determination of threads per unit length in woven fabrics
5.	IS:1964-2001 RA-2010	Methods for determination of mass per square unit area and mass per unit length of fabrics
6.	IS:1969-1985 RA-2010	Methods for determination of breaking load and elongation of woven textile fabrics
7.	IS:3456-1966 RA-2010	Methods for determination of water soluble matter of textile fabric
8.	IS:1390-1983 RA-2009	Methods for determination of pH value of aqueous extracts of textile materials
9.	IS:2454-1985 RA-2013	Methods for determination of colour fastness of textile materials to artificial light (xenon lamp)
10.	IS/ISO105- C10-2006	Methods for determination of colour fastness of textile materials to washing, Test C3
11.	IS:11056-1984 RA-2010	Methods for determination of air permeability of fabrics

3.0 TERMINOLOGY, DEFINITIONS AND SYMBOLS

3.1 For the purpose of this specification definitions & terminology given in relevant Indian standard should apply.

4.0 STANDARD PATTERN

4.1 The standard pattern of Blended fabric polyester & cotton (67:33) un dyed /dyed held in the custody of Controller, Controllerate of Quality Assurance, (Textiles & Clothing), Post Box No. 294, Kanpur-208004, shall constitute the standard with regard to appearance, general workmanship, finish, shade and any other particulars/ properties not noted/defined in this specification.

5.0 MATERIAL

5.1 The Blended fabric polyester & cotton (67:33) un dyed/dyed shall be made from the spun yarn having ultimate blend of 67 percent polyester and 33 percent Cotton. The composition of the finished fabric shall comply with the requirements given in clause 7.1

6.0 PROCESSING / MANUFACTURE

6.1 Evenly spun yarn shall be used for both warp and weft.

6.2 The fabric shall be woven plain Weave with single yarn. Count of yarn shall be 20 Tex for both warp & weft. Count of yarn is for the guidance of manufacturer.

6.3 The fabric shall be uniformly woven and the selvages shall be firm and straight. Split Selvages will not be acceptable.

6.4 In case of dyed fabric the fabric shall be dyed with Vat/Reactive and Disperse Dye to obtain the desired shade of the fabric and also meet the dye fastness requirements as stipulated in clause 7.1.

6.5 The fabric shall be free from substances liable to cause subsequent tendering

6.6 The length of each piece in bolt should not be less than 40 meters in running length without stitching/basting in between or as agreed between supplier and purchaser.

7.0 REQUIREMENT AND TOLERANCES

7.1 The finished fabric shall comply with the provisions of the following particulars and shall satisfy the tests given below:

S. No.	Parameter	Requirements	Tolerance	Methods
1.	Width (cms.)	95 or as agreed	---	IS:1954:1990
	Mass (gm/m ² .)	130 (Max)	---	IS:1964:2001
3.	* Ends / dm	330-350	---	IS:1963:2004
4.	* Picks / dm	250-270	---	IS:1963:2004
5.	*Counts of yarn (Warp & Weft)	20 Tex	---	IS:3442:1980
6.	Breaking Load (Kg /N) between 5x20 cm grip (a)Warp (b)Weft-	65Kg/(635N) (Min) 55Kg/(540N) (Min)	--- ---	IS:1969:1985
7.	Air permeability (cm ³ /cm ² / sec) at 25 cm water head	488	±122	IS:11056-1984
8.	Nature of Weave	Plain	---	Visual
9.	Composition (%) (Dry Mass Basis)	Polyester 67 ± 2 Cotton 33 ± 2		IS:3416:1988
10.	pH Value (Cold Method)	6.0 to 8.5		IS:1390:1983
11.	Water soluble matter (Max %)	1.0		IS:3456:1966
12.	Colour fastness to (a)Light (b)Washing /change in colour and staining of adjacent fabrics	5 or better 4 or better	----	IS: 2454:1985 IS/ISO:105: C10-2006, Test C3

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* These parameters are of suggestive in nature and the manufacturer may make suitable alteration without changing the basic characteristics of the fabric, provided the fabric meets all other requirements given above.

8.0 WORKMANSHIP AND FINISH

8.1 Finished product Blended fabric polyester & cotton (67:33) undyed/ dyed shall be free from stains and weaving/spinning defects etc.

8.2 Selvage should be straight even well made and with even tension. The finished fabric shall be thoroughly clean and shall not have any objectionable odor.

9.0 PRE-INSPECTION BY PRODUCER

9.1 Manufacturer/contractor must satisfy themselves first that the store manufactured are in accordance with the contract and fully conform to the specification requirements. By carrying out thorough pre-inspection of each lot/batch before actually tendering the same for inspection to the Quality Assurance officer nominated under the terms of the contract. A declaration by the manufacturer/contractor that necessary pre-inspection/test have been carried out on the stores tendered and same are fit for inspection and tests carried out shall be rendered along with the offer. The declaration shall include the method followed in pre-inspection/test showing features checked/tested and the test reports/certificate be submitted along with offer / declaration.

9.2 If the Quality Assurance Officer finds that pre-inspection of the consignment as required above has not been carried out, the consignment is liable for rejection.

10.0 QUALITY ASSURANCE

10.1 On examination of samples taken from any portion of the consignment or during surveillance inspection, shall conform to the requirement when tested in accordance with the method mentioned against each in the specification.

10.2 Bulk inspection of store shall be carried out as per this specification by the QA authority for 100% store.

11.0 PRODUCT SPECIFICATION

11.1 Refer to clause No.7.1

12.0 SAMPLING PROCEDURE

12.1 The supplier shall ensure that the pre-inspected stores offered for the inspection are serially marked and arranged in such a way that the sample units are easily accessible to the sampling officer so as to enable him to draw the samples at random from any portion of the consignment.

12.2 The quality assurance officer shall draw sample from the bulk lot at random using the technique of random sampling as per IS: 4905-1968.

12.3 The sample units, as per table given below, shall be drawn for visual examination. Laboratory test samples shall be drawn from the samples taken out for visual examination.

SAMPLING PLAN

Based on 4% AQL

Authority IS: 2500(Pt-I):2000

Lot size (In No. of bolts/ rolls)	Sampling plan for			
	Visual Inspection		Laboratory Test	
	Sample size Gen. Insp level-II	Acceptance No.	Sample Size Spl Insp level (S-3)	Acceptance No.
1	2	3	4	5
Up to 90	13	1	5	0
91 - 150	20	2	5	0
151 - 280	32	3	8	0
281 - 500	50	5	8	0
501 - 1200	80	7	13	01
1201 - 3200	125	10	13	01
3200 and above	200	14	20	02

13.0 CRITERIA FOR CONFORMITY

13.1 All the sample units drawn shall be tested /examined to the specification requirements. If all the samples units are found to conform to the requirements of this specification the lot shall be considered to be in conformity to the specification.

13.2 100 % pieces shall be subjected to Width, Breaking Load and Air permeability test , And lot shall conform to the requirement of this standard shall be accepted, provided lot satisfies the criteria of conformity for other requirement of this standard as given in clause 7.1.

14.0 TEST METHOD

14.1 The specification requirement mentioned in clause-7.0 against each parameters be followed for test methods.

15.0 MARKING ON STORE

15.1 Each piece at both ends shall be indelibly marked with the following:-

- (a) DS Cat No.
- (b) Nomenclature
- (c) Width and length of the piece along with No. of flags contained in piece
- (d) Manufactures Name/Trade Mark
- (e) Month and year of Manufacturing

16.0 PRESERVATION AND PACKAGING

16.1 The store "Blended Fabric Polyester and Cotton (67:33)" should be packed to withstand transit hazards such as mechanical damage, effect of temperature, humidity including salty atmosphere etc.

16.2 Individual folded piece of fabric shall be wrapped with polythene film of 40 microns. Two or three such pieces shall then be packed in HDPE bag to make a bale. Material so packed shall be delivered in the form of bales having 2 or 3 pieces inside. The packing material should be of the best trade quality.

16.3 Marking, before dispatch, each bale shall be legibly marked by stencil, showing the following details:-

- (i) Cat Part No. and Nomenclature of store
- (ii) Quantity packed
- (iii) Serial No. of packing
- (iv) Month and Year of Packing
- (v) Gross mass in Kg
- (vi) Consignee Name and address
- (vii) Manufacturer name/Trade Mark
- (viii) AT/SO/Indent No and date
- (ix) Inspection Note No & Date

17.0 TECHNICAL LITERATURE/ DOCUMENTS:- N/A

18.0 WARRANTY

18.1 All stores to be supplied should be free from all defects and faults in material workmanship and manufacture. They should be of the highest grade and consistent with established and generally accepted standards for material of the type used and in full conformity with the specifications, drawings or samples and shall, if operable, operate properly. The seller shall be bound to furnish a clear written warranty regarding the same. In the event of the ultimate consignee in India not finding the stores in accordance with the order, the seller will be required to replace them free of cost inclusive of all freight and handling charges. Such replacements will be done within 90 days of the claim report raised by the purchaser. The standard conditions will also apply in respect of replaced stores. This warranty shall remain valid for 18 months after delivery or 12 months after their arrival at the ultimate destination in India, whichever is earlier, or as specified in the contract.

19.0 DEFENCE STORES CATALOGUE NUMBER

19.1 The store covered by this specification shall bear the following.

S.No.	Cat/Part No.	Nomenclature
01	NIV	Blended Fabric Polyester & Cotton (67:33) undyed/ dyed for Supply Dropping Parachutes

21.0 SUGGESTIONS FOR IMPROVEMENT


21.1 Any suggestions for improvement of this specn. may be forwarded to:-

THE CONTROLLER
CONTROLLERATE OF QUALITY ASSURANCE
(TEXTILES & CLOTHING),
POST BOX NO. 294 KANPUR – 208001.
E mail : cqate-dgqa @nic .in

DATE

03 Feb' 2015
03 Feb 2015

PLACE : KANPUR


CONTROLLER
CONTROLLERATE OF QUALITY ASSURANCE
(TEXTILES & CLOTHING),
POST BOX NO. 294,
KANPUR – 208001.

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22. DETAILS OF ABBREVIATIONS USED

- (a) T&C - Textile and Clothing
- (b) GS - General Store
- (c) IND - Indian
- (d) IS - Indian Standard
- (e) CQA - Controllerate of Quality Assurance
- (f) DGQA - Director General of Quality Assurance