

ADRDE/SPECN/1993/41

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GOVT. OF INDIA
MINISTRY OF DEFENCE

SPECIFICATION
FOR
TAPE, COTTON, KHAKI, 20mm, 265N
FOR AERONAUTICAL PURPOSES

ISSUED BY
HAWAI VITRAN ANUSANDHAN AVAM VIKAS SANSTHAPAN
RAKSHA MANTRALAYA
AGRA CANTT.-282 001

RECORD OF AMENDMENTS

Sub Heading to Which Amendment Pertains	Authority	Incorporated by (Name and Rank in block letters)	Initials
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0. FOREWORD

- 0.1 This specification has been prepared by a special committee of ADRDE and approved by DIRECTOR, ADRDE, Agra Cantt.
- 0.2 This specification would be used for manufacture, inspection and procurement of 'Tape, Cotton, Khaki, 20mm, 265N' for Aeronautical purposes.
- 0.3 In case of any discrepancy between this specification and any sample or pattern, this specification will be taken as correct.
- 0.4 Enquiries regarding this specification, in relation to any contractual conditions, should be addressed to the Inspecting Authority named in the tender or contract. Other enquiries will be referred to ADRDE, Agra Cantt.
- 0.5 Copies of this specification can be obtained on payment from :-

" Aerial Delivery Research & Development Estt.,
Post Box No. 51, Station Road, Agra Cantt - 282 001"

OR

The Concerned Inspecting Authority.

1. SCOPE

- 1.1 This specification covers the requirements of Tape, Cotton, Khaki, 20mm, 265N.

2. RELATED SPECIFICATIONS

- 2.1 Reference is made in this specification to :
- (i) IS : 2 Rules for rounding off numerical values.
 - (ii) IS : 1954 Methods for determination of length and width of fabrics.
 - (iii) IS : 1964 Methods for determination of weight per square metre and weight per linear metre of fabrics.
 - (iv) IS : 3442 Methods for determination of crimp and count of yarn removed from fabrics.
 - (v) IS : 1963 Method for determination of threads per unit length of woven fabrics.

- (vi) IS : 1969 Methods for determination of breaking load and elongation at break of woven textile fabrics.
- (vii) IS : 1390 Methods for determination of PH value of aqueous extracts of textile materials.
- (viii) IS : 686 Method for determination of colour fastness of textile materials to daylight.
- (ix) IS : 2454 Method for determination of colour fastness of textile materials to artificial light (Xenon lamp).
- (x) IS : 4905 Methods for random sampling.
- (xi) IS : 7702 Method for determination of thickness of woven and knitted fabric.
- (xii) IS : 764 Method for determination of colour fastness of textile materials to washing : Test 3

2.2 All the specifications / drawings referred to in this specification for any tender or contract shall mean the edition current on the date of such tender or contract.

2.3 Indian standard specifications are issued by Bureau of Indian Standard and are obtainable on payment from the Sales Section, Bureau of Indian Standard, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi-110 002 or their regional offices.

3. MATERIALS

The tape shall be manufactured from best quality, unsized cotton yarn.

4. MANUFACTURE

4.1 The single and floded yarn shall be evenly spun and uniformly twisted. The tape shall not be more than one year old from the date of manufacture to the date of delivery.

5. DIMENSIONS AND OTHER DETAILS

5.1 The tape, cotton, khaki shall conform to the essential particulars given in the table under Appendix 'A'.

6. WORKMANSHIP AND FINISH

6.1 The finished tape shall be clear, evenly woven, free from weaving/spinning defects and stains. The selvages of the

tape shall be firm, regular and even. The dyed tape shall be of uniform shade and to the approved colour standard (i.e, vat/equivalent dyes shall be used).

7. MARKING

7.1 Each roll shall be tied with a cardboard label 75mm x 45mm size, and shall be marked with the contractor's name, trade mark, date of manufacture, width, length of the roll, D.S. Cat. No. and nomenclature of store.

8. QUALITY

8.1 Any portion of the samples drawn from consignment, on examinations, shall show its conformity to the particulars furnished in table under Appendix 'A' in addition to the following, when tested in accordance with the standard methods.

<u>TEST</u>	<u>REQUIREMENT</u>
i) pH (by Cold Method)	6 - 8.5
ii) Colour fastness to light	Rating - 5
iii) Colour fastness to washing	Rating - 4 or better

9. PRE-INSPECTION OF STORES / CONSIGNMENT

9.1 Manufacturers / Contractors must satisfy themselves that the stores are in accordance with the terms of the contract and fully conform to the required specification, by carrying out thorough pre-inspection of each lot before actually tendering the same for inspection to the inspecting officer nominated under the terms of the contract. A declaration by the contractor that necessary pre-inspection has been carried out on the stores tendered, will be submitted alongwith the challan. The declaration will also indicate the method followed in carrying out pre-inspection showing the features checked/ tested, and will have the test certificate attached to the challan / declaration.

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

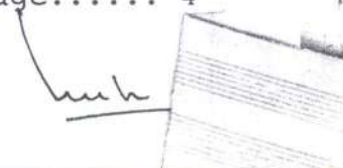
10. SAMPLING

10.1 The manufacturer/supplier shall tender the store duly numbered serially and arranged in such a way that all the units are easily accessible to the Inspector.

10.2 For carrying out full laboratory tests, the rolls selected as in coloumn 2 of the table given below shall constitute the test samples.

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- 10.2.1 The Inspector shall draw samples for full tests from the bulk lot at random using the technique of random sampling as given in IS : 4905.
- 10.2.2 The length of sample for subjecting to full tests shall be 5m.
- 10.3 The remaining rolls of the lot shall be subjected to breaking load test only.
- 10.3.1 The length of sample for breaking load test shall be 3m.

10.3.2

T A B L E

Lot Size (No. of Rolls in a lot)	Sample size for full tests
Upto 25	5 or lot size which ever is less
26 to 50	8
51 to 90	13
91 to 150	20
151 to 280	32
281 to 500	50
501 to 1200	80
1201 to above	125

10.4 The rolls shall be supplied in continuous length of 100m or more. However, shorter lengths of the roll as given below may be accepted.

15% of the lot shall be of length 60m and above

10% of the lot shall be of length 40m and above

11. CRITERIA FOR CONFORMITY

11.1 All the sample units drawn as per clause 10 shall be tested/ examined to the relevant specification requirements. If all the sample units are found the conform to the specified particulars as given in the specification, the supply shall be considered to be in conformity, otherwise not.

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12. INSPECTION

12.1 If on examination of any sample taken from any portion of a consignment, the materials is found to be not fully in accordance with this specification, the whole supply may be rejected.

13. WARRANTY

13.1 The store supplied against the order shall be deemed to bear a warranty of the contractor against defective material, workmanship and performance, for a period of 12 months from the date of receipt of stores at consignee's Depot. If during this period the store supplied is found by the consignee to be defective, the same shall be replaced immediately with store as per this specification by the contractor at site free of any charge or cost.

14. PACKAGING

14.1 Tape shall be supplied in rolls of continuous length without joints, of 100 m or as required by the procuring authority. Each roll shall be packed in a polythene bag (150 gauge film) to form a unit pack. Appropriate number of unit packs shall be properly arranged in case wood packing (CWP) provided with liners water-proof. The empty space, if any, shall be filled-in with cushioning materials to prevent any movement of the contents inside the case wood packing (CWP), and top lid of the case wood packing shall not exceed 40 Kg (Packing materials used should be of the best trade quality and previously approved by the Inspecting officer).

14.2 If ordered for delivery to a local Inspecting Depot, the Tape shall be delivered loose in firm's returnable packs. After inspection, the accepted supplies shall be packed by the Inspection Depot Authority as indicated in para 14.1 above.

14.3 Before despatch, each (CWP) shall be legibly and indelibly be marked showing the following details. :-

- a) Nomenclature and Cat. No. of the store
- b) Quantity packed in each CWP
- c) Serial Number of CWP
- d) Month and year of packing
- e) Name and trade mark of the manufacturer

- f) Gross mass of the CWP in Kg.
- g) Name and address of the consignee
- h) Inspection Note No. and date

15. DEFENCE STORES CATALOGUE NO.

15.1 Not yet allotted.

16. SUGGESTIONS FOR IMPROVEMENT

16.1 Any suggestion for improvement of this document shall be forwarded to the Director, Aerial Delivery Research & Development Establishment, Post Box No. 51, Station Road, Agra Cantt - 282 001.

APPENDIX - 'A'

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Roll Length m	Width mm	Thickness, mm (Under 250 g/cm ² Pressure)	Suggested Particulars			Mass / Unit Length (Max) g/m	Breaking Load on full width, N (20 cm bit. grips)	Elongation at break (max) percent	Weave
(1)	(2)	(3)	Ends in full width	Picks/dm	Linear density of yarn - Tex	(8)	(9)	(10)	(11)
					Warp Weft				
100 or as Ordered	20±0.5	0.55±0.02	70	85±5	16x2	16x2	265±35	15	2/2 Horizontal Weave Twill.
						* (38) 3.8			* Hersey bone Twill

NOTE :- The test specimen shall be conditioned for 48 hours at 27±2°C and 65±2 percent R. H. before testing.

* Authy:- ADRDE Letter No. ADRDE/GRMS/MAT/24 Dt. 15/10/08

15/10/08
 JMMT
 18/10/08

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