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इजाजत प्राप्त

Certified Correct Copy of
Serial/SPECN DRG

दिनांक/At Date

CLOTH COTTON DOWN TIGHT

V. Thairigal
6/3/18

कुले निदेशक व का. नि. (स. नि.)

सदरकी, पुणे - 411 020

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ISSUED BY

DEPARTMENT OF DEFENCE PRODUCTION
MINISTRY OF DEFENCE
CONTROLLERATE OF QUALITY ASSURANCE
(MILITARY EXPLOSIVES)
AUNDH ROAD, PUNE - 411 020.

INC : 29886 : GPEL : 8305

RECORD OF AMENDMENTS

Amendment Sr No.	Date	Details of Amendment	Amendment carried out by (Name & date)
D.C.NO 3641-ME/3.7.2000		New Specn Sealed Provisionally	

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THIS SPECIFICATION OR ANY PATTERN, DRAWING OR ANY OTHER INFORMATION ISSUED IN CONNECTION THEREWITH MAY ONLY BE USED FOR A SPECIFIC ORDER PLACED BY THE COMPETENT AUTHORITY. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE WHATSOEVER WITHOUT THE EXPRESS WRITTEN SANCTION OF THE DIRECTOR GENERAL OF QUALITY ASSURANCE, NEW DELHI - 110 011.

FOREWORD

- 0.1 This specification has been prepared by the Controllorate of Quality Assurance (Military Explosives), Aundh Road, Pune-411020.
- 0.2 This specification shall be used for tender enquiry, procurement, manufacture and Quality Assurance of the Item covered by this specification.
- 0.3 The Quality Assurance Authority for this store is The Controller, Controllorate of Quality Assurance (Military Explosives), Aundh Road, Pune - 411 020. Enquiries regarding this specification relating to technical or any other contractual conditions shall be referred to the Quality Assurance Authority mentioned above named in the tender or contract.
- 0.4 Copies of this specification can be obtained on payment from-

The Controller
Controllorate of Quality Assurance (Mily Explosives)
Aundh Road,
Pune-411 020.

1.0 SCOPE

- 1.1 This specification prescribes requirements, method of sampling and test of Cloth Cotton Down tight and provides guidance to suppliers/manufacturers and quality assurance agencies.
- 1.2 This specification is meant to govern manufacture, supply and quality assurance of Cloth cotton down tight.
- 1.3 The material is suitable for use in the manufacture of burster bag for 155mm Ammn

2.0 RELATED SPECIFICATIONS AND DOCUMENTS

2.1 The related documents as mentioned in Clause 2.2 are those applicable at the time of publication of this specification. It is contractor's/manufacturer's responsibility to confirm their current applicability and to obtain from CQA(ME), Aundh Road, Pune - 411 020, information concerning any change that may be necessary due to cancellation, replacement or supersession of any of these documents

2.2 The following related specifications have been referred to in this IND/ME specification :

- | | | |
|-----|--|---|
| I | IS:138:1992 (Third Revision)
Reaffirmed 2004 Amds 1 | - Ready Mixed Paint, Marking, for packages &
Petrol Containers - Specification |
| II | IS 1390-1983 (1 st Revision)
Reaffirmed 2004) | - Methods for determination of pH value of an
aqueous extract of textile materials |
| III | IS 1963-1981(2 nd Revision)
Reaffirmed 2004) | Method for determination of threads per unit
length in woven fabrics |
| IV | IS : 1969-1985 (2 nd Revision)
Reaffirmed 1999) Amds 1 | - Methods for determination of Breaking
Strength & Elongation of woven textile fabrics |
| V | JSG 0114-1994 | - Method of test for textiles used in ammn. |
| VI | IND/ME/221 | - Cloth viscose Class A, Class B |

2.3 Copies of this specification and of related specifications may be obtained on payment basis from the agencies mentioned below:

IS Specification	The Bureau of Indian Standards, Manak Bhavan, 9, B.S. Zafar Marg, New Delhi-110 002 OR Their Regional Branch offices.
JS Specification	The Director, Directorate of Standardisation, SDC, J-13, Ministry of Defence T Block, Nirman Bhavan New Delhi 110 011
CQA(A) Specification	The Controller Controllarate of Quality Assurance (Ammunition), Khadki, Pune-411 003
IND/ME Specifications/ drgs.	The Controller, Controllarate of Quality Assurance (Mily Explosives) Aundh Road, Pune-411 020

3.0 MATERIAL / FINISH

3.1 The fabric shall be closely woven cotton in plain weave. It shall be uniform in appearance and shall be free from any manufacturing defects like loose threads , missed picks , floats , holes etc.

4.0 PRE- INSPECTION OF STORES / CONSIGNMENT

4.1 Manufacturers/contractors must satisfy themselves that stores are in accordance with the terms of the contract and fully conform to the required specification, by carrying out a thorough pre-inspection of each lot before actually tendering the same for inspection to the Quality Assurance 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 challan. The declaration will also indicate the method followed in carrying out pre-inspection showing the features checked/tested and will have a Test Certificate attached to the challan/declaration.

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

5.0 QUALITY ASSURANCE

5.1 INSPECTION

5.1.1 The cloth cotton down tight and the packages in which it is contained shall be subject to inspection by and to the approval of QA officer / QA authority.

5.1.2 Samples of the finished material and of the packages in which it is contained may be taken from any portion of the consignment and at any stage of manufacture.

5.1.3 If, on examination, any sample be found not to conform to this specification, the whole consignment may be rejected.

5.1.4 The foregoing provisions shall equally apply to the prime contractors and subcontractors, if any.

5.2 SAMPLING

5.2.1 The sampling shall be done in good light and in an enclosed space free from dust, acid and other fumes. Utmost cleanliness shall be observed while handling the cloth so that cloth does not acquire acidity / alkalinity, chloride and stains If the roll is not uniform In appearance samples will be drawn to represent extreme variations.

5.2.2 Samples shall be drawn preferably from beginning , middle and end of the roll / than selected for sampling.

5.2.3 Three representative samples measuring 2 meters length X full width each shall be drawn from beginning , middle and end of the roll selected for sampling The no of rolls / thans for drawing samples from batch / lot shall be as follows.

Batch / Lot size (No of rolls / thans)	No of rolls / thans to be selected
2 to 8	2
9 to 15	3
16 to 25	5
26 and above	8

5.2.4 All precautionary measures for handling of the store as stated in the standing instructions shall be strictly complied with In the absence of these, instructions from the QAO shall be sought.

6.3 TESTING

5.3.1 The samples shall be tested/examined as per Clause 3 above and shall also conform to the following test requirements : given in clause 5.3.2

5.3.2 TEST REQUIREMENTS

SL. NO.	CHARACTERISTICS	PASSING STANDARD	TEST METHOD Ref. to JSG 0114
1	2	3	4
PHYSICAL REQUIREMENTS			
1	Colour	White / unbleached uniform in appearance free from defects like loose thread, missed picks, floats, holes etc	
2	Substance, g/m ²	Min 120 Max 140	1
3	No of threads / cm		IS: 1963-1981
	Warp	Min 30 Max 50	
	Weft	Min 30 Max 40	

1	2	3	4
4	Breaking load, N.	Min	IS : 1969-1985
	Warp	350	
	Weft	300	

CHEMICAL REQUIREMENT

5	Moisture content, Percent by mass,	Max 9.0	4
6	pH of water extract,	Min 5.5 Max 8.5	IS : 1390-1983 Cold method
7	Chlorides as NaCl, Percent by mass,	Max 0.05	5&7
8	Sulphates, as Na ₂ SO ₄ , Percent by mass,	Max. 0.25	5&8
9	Ash, Percent by mass	Max 2.0	1.0

5.3.3 QUALITY OF REAGENTS

Unless otherwise specified, pure chemicals and distilled water shall be employed in tests. "Pure chemicals" shall mean the chemicals that do not contain impurities which affect the test of analysis

5.3.4 Condition for testing

The test specimen shall be conditioned to standard atmosphere of 65 ± 2 % Relative Humidity and $27^{\circ}\text{C} \pm 2^{\circ}\text{C}$ temp for 24 hrs and tested in the same standard atmosphere.

5.4 CRITERIA FOR CONFORMITY

5.5.1 The batch/lot shall be declared as conforming to the specification if the samples drawn as per the sampling plan satisfy Clause 3 and the test requirements given in Clause 5.3.2 above.

6.0 PACKING

6.1 The cloth cotton down tight shall be packed in a continuous length of 20 meters or such continuous length as agreed between the supplier and purchaser. Each roll will be wrapped all over, with chemically neutral strong packing paper or in polythene film of thickness 0.13mm minimum. A suitable no. of such rolls will be made into bales / bundles each, further wrapped in gunny or cloth tied securely with nylon / iron bands, in such a way that there is no damage to the contents.

6.2 Any other form of packing shall have prior approval of the QA officer / QA authority.

6.3 The inclusion of any foreign matter or impurities in any of the packages shall render the whole batch / consignment liable for rejection

7.0 MARKING

7.1 All the packages containing the material shall be indelibly and legibly marked with the following details as applicable :

- a) Nomenclature and Specification No. of the store
- b) Name and address of the consignee
- c) AFT No. or S.O.No. and date
- d) Lot/Batch No and date of manufacture
- e) Consignment No.
- f) Gross and Net Mass
- g) Consecutive No of package and total No. of packages
- h) Date of Supply
- j) Contractor's initials or recognised trade mark.

7.2 In addition to the above, the QA Officer/QA Authority may suggest some more marking/identification suitable at the time of inspection

7.3 The paint used for marking shall conform to IS:138-1992 and to the satisfaction of QA officer / QA authority

8.0 WARRANTY

9.1 The store supplied against the contract shall deem to have been warranted against defective materials and performance by the manufacturer/contractor/supplier for a period of 12 months from the date of receipt of the store at the consignee's end and if during this period any of the store supplied is found defective the same shall be replaced by the manufacturer/contractor/supplier free of charge at the consignee's premises.

9.0 SAFETY OF OPERATION

9.1 Nothing in this specification shall relieve the manufacturer/supplier/user of his responsibility for the safety of operation in manufacture, storage, transit or use of the store.

10.0 DEFENCE STORES CATALOGUE NUMBER

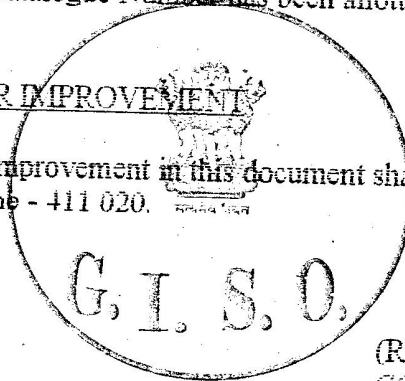
10.1 The Defence Stores Catalogue Number has been allotted to this store is---
Nil.

11.0 SUGGESTIONS FOR IMPROVEMENT

11.1 Any suggestions for improvement in this document shall be forwarded to The Controller, CQA(ME), Aundh Road, Pune - 411 020.

Date :

Octo. 2012



Sd/-
(R. P. KHANNA)
CONTROLLER
CQA(ME), AUNDH ROAD,
PUNE - 411 020
