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ASCC

01/10/2018  
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Ministry of Defence, New Delhi-110011

भारत सरकार  
GOVERNMENT OF INDIA  
रक्षा मंत्रालय  
MINISTRY OF DEFENCE

संयुक्त सेवा विनिर्देश  
JOINT SERVICES SPECIFICATION

ON

CLOTH SILK; FABRIC SILK FINE; AND SILK  
GAUZE - DYED OR UNDYED, PROOFED OR UNPROOFED

मानकीकरण निदेशालय  
रक्षा उत्पादन विभाग  
रक्षा मंत्रालय  
'एच'-ब्लॉक, निर्माण भवन डाकघर  
नई दिल्ली-११००११

DIRECTORATE OF STANDARDISATION  
DEPARTMENT OF DEFENCE PRODUCTION  
MINISTRY OF DEFENCE  
'H' BLOCK, NIRMAN BHAVAN POST OFFICE  
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**LIST OF MEMBERS ASSOCIATED WITH FORMULATION OF THIS STANDARD**

1. This Fourth Revision of the Joint Services Specification 8305-22 has been approved by Rear Admiral Sanjay Misra, DGNAI, Vice Chairman, Offg Chairman, Armament Standardisation Sub-Committee by circulation.

2. The representatives of following organisation have been present/consulted in approving the document:

S. No.	Organisation
1.	ADGWE/GS (WE-2/3), New Delhi
2.	Dte of Arty (GS/Artillery-5), New Delhi
3.	Dte Gen of Naval Armt, Naval HQ, New Delhi
4.	Dte of Armt & Safety Eqpt, Air HQ, New Delhi
5.	DGEME, Army HQ, New Delhi
6.	DGNAI, Naval HQ, New Delhi
7.	DGAQA, JD (Armt) Gp, New Delhi
8.	CQA (ME), Pune
9.	CQA (Amn), Pune
10.	CQA (SA), Ichapur, West Bengal
11.	CQA (W), Jabalpur
12.	HEMRL, DRDO, Pune
13.	ARDE/DRDO Orgn, Pune
14.	Ammunition Factory, Pune
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16.	DG(ACE) Pune

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JSS 8305-22 : 2017  
(Fourth Revision)

**RECORD OF AMENDMENTS**

Amendment		Amendment pertains to S. No./Para No./ Column No.	Authority	Amended by	Signature & Date
No.	Date			Name & Appointment (in block letters)	

S. No.	Topic	Page No.
1.	FOREWORD	1
2.	SCOPE	3
3.	RELATED SPECIFICATIONS/DOCUMENTS	3
4.	MANUFACTURE AND FINISH	3
5.	TENDER SAMPLE	4
6.	PRE-INSPECTION OF STORES/CONSIGNMENT	4
7.	QUALITY ASSURANCE	4
8.	PACKAGING AND MARKING	5
9.	WARRANTY	5
10.	SAFETY OF OPERATION	6
11.	DEFENCE CATALOGUE NUMBER/NATO STOCK NUMBER	6
12.	SUGGESTIONS FOR IMPROVEMENT	6
13.	SCHEDULE	7

## 0. FOREWORD

0.1 This Joint Services Specification has been prepared by Armament Standardisation Sub - Committee on the authority of the Standardisation Committee, Ministry of Defence.

0.2 This specification has been approved by the Ministry of Defence and is mandatory for use by the Defence Services.

0.3 This JSS 8305-22 : 2017 (Third Revision).

a) was initially prepared in the year 1996.

b) was revised in the year 2006,2013.

c) is revision of JSS 8305-22 : 2013 (Second Revision) and supersedes the same.

0.4 This specification would be used for Manufacture, Supply and Quality Assurance of Cloth Silk, Fabric Silk Fine and Silk Gauze dyed or undyed, proofed or unproofed.

0.5 Quality Assurance Authority for the item covered in this specification is the controller, Controllerate of Quality Assurance (Military Explosives), Aundh Road, Pune - 411020 (email id [cqamear-dgqa@nic.in](mailto:cqamear-dgqa@nic.in)). Enquiries regarding technical parameters shall be addressed to the Quality Assurance Authority, while other enquiries shall be referred to:

The Director,  
Directorate of Standardisation,  
Ministry of Defence,  
'H' Block, Nirman Bhawan PO,  
New Delhi-110011.  
[assc.defstand@gov.in](mailto:assc.defstand@gov.in)

0.6 Non-registered users can obtain the following on payment:

a) **Copies of IS from:**

Bureau of Indian Standards,  
Manak Bhawan,  
9, Bahadur Shah Zafar Marg,  
New Delhi-110002,

or

their Regional/Branch offices.

b) **Copies of JSSs/JSGs from:**

The Director,  
Directorate of Standardisation,  
Standardisation Documents Centre,  
Ministry of Defence,  
Room No. 05, 'J' Block,  
Nirman Bhawan PO,  
New Delhi -110 011.

**JSS 8305-22 : 2017**  
**(Fourth Revision)**

0.7 Indian Standard (IS) specifications are available free of cost for registered users on:

Directorate of Standardisation Website:

***www.ddpdos.gov.in***

For registration visit our website.

0.8 This specification holds good only for the supply order for which it is issued.

0.9 **Directorate of Standardisation Website** - All the approved JSSs/JSGs are available on the Directorate of Standardisation Website ***www.ddpdos.gov.in***. Defence Organisations desirous of accessing a copy of this document are requested to approach the Directorate of Standardisation for obtaining user id/password to access the website.

## 1. SCOPE

1.1 This specification is meant to govern manufacture, supply and quality assurance of Cloth Silk ; Fabric, Silk, Fine ; and Silk Gauze dyed or undyed, proofed or unproofed.

1.2 The Cloth Silk is suitable for cartridge bags for charges and igniters. Fabric, Silk fine and Gauze Silk are suitable for parachutes and igniter for ammunition respectively.

## 2. RELATED SPECIFICATIONS/DOCUMENTS

Reference is made in this specification to:

Table 1

S. No.	Specification	Nomenclature
a)	JSG 0114 : 2015 (First Revision)	Methods of tests for Textiles.

## 3. MANUFACTURE AND FINISH

3.1 The Cloth Silk is to be woven plain or twill, free from reediness and missed picks. Broken ends and picks are to be neatly mended and floats trimmed off.

3.2 The material is to be of the uniform width as called for by the contract.

3.3 The Silk noils used in the manufacture of the yarn shall be of good commercial quality, and free from visible impurities. It shall be practically free from vegetable fibre, mineral matter, salts, etc and shall be \*scoured and otherwise treated if necessary, to bring it to the requisite degree of chemical purity as regards neutrality etc. The dye used for colouring shall be compatible with explosives.

3.4 The material shall be free from starch, ammonium salts and from weighting, filling, or sizing materials or any other extraneous matter. No substance is to be added to the Silk other than neutral, mineral oil or mineral grease in such minimum quantity as is necessary for satisfactory manufacture.

3.5 The unproofed, undyed material may be grey or pale yellow in colour. If Tussore silk is used, the colour may be fawn or brown.

3.6 The Fabric Silk Fine, shall be woven in accordance with the details given in the schedule. The Silk Gauze shall be woven in the gum and finished as required by the contract.

3.7 When required by the contract the Cloth Silk shall be proofed by uniform impregnation with an aqueous solution of 2:4 Dinitro-alpha-naphthol. The proofed cloth shall be yellow in colour.

**3.8** The colour of the dyed Cloth Silk shall be as required by the contract. The dye used shall be fast and shall not contain more than 0.01 % of Sulphur or compounds of Sulphur, calculated as Sulphur on the mass of material.

**NOTE -** \* Scouring - Treatment with soap and soda solution to remove grease.

#### **4. TENDER SAMPLE**

The manufacturer/supplier/contractor shall submit a tender sample not less than one metre in full width free of all charges and conforming to this specification, to the Quality Assurance Authority/Quality Assurance Officer as stated in the contract.

#### **5. PRE-INSPECTION OF STORES/CONSIGNMENT**

**5.1** 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 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 a necessary pre-inspection has been carried out on the stores tendered, will be submitted along with 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.

**5.2** 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.

#### **6. QUALITY ASSURANCE**

**6.1 Inspection** - Cloth, Silk, Fabric, Silk, Fine and Silk, Gauze and the packages in which they are packed shall be subject to inspection by and to the approval of the Quality Assurance Officer / Quality Assurance Authority.

**6.2 Sampling** - Three separate representative samples shall be taken from each consignment of 1000 metres or part thereof. Each sample shall be not less than one metre long and full width of the cloth.

**6.3 Criteria for Conformity** - If on examination, any sample is found not to conform to this specification, the whole batch/lot/consignment may be rejected.

#### **6.4 Test Requirements.**

Samples taken from any portion of the batch/lot/consignment of material shall conform to clause 3 and in addition shall conform to the test requirements shown in the following paras:

##### **6.4.1 Requirements of Cloth Silk; Fabric, Silk, Fine; and Silk Gauze.**



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#### 6.4.2 Chemical Tests

Table 2

S. No.	Characteristics	Requirements	Test Method Reference to JSG 0114
a)	Moisture ** (Regain) at 105 °C to 110 °C, % by mass	11.0 <i>Max</i>	4
b)	pH of water extract	7.5 <i>Max</i> 5.5 <i>Min</i>	6
c)	Water soluble chlorides calculated as Sodium chloride, % by mass	0.05 <i>Max</i>	7
d)	Water soluble sulphates calculated as anhydrous Sodium Sulphate, % by mass	0.4 <i>Max</i>	8
e)	Matter soluble in a mixture of Benzene and Methyl alcohol, percent by mass (inclusive of proofing agent whenever proofed material is stipulated in the contract)	5.5 <i>Max</i>	9
f)	Ash on incineration at 800 °C ± 25 °C	2.0 <i>Max</i>	10
g)	Lead and compounds of lead calculated as metallic Lead (When required to be Lead free by contract), % by mass	0.03 <i>Max</i>	
h)	Vegetable fibre, % by mass	4.0 <i>Max</i>	12

#### NOTES

1. All percentages shall be calculated on the dry mass material after drying to constant mass.
2. When material is proofed, the material shall contain 0.25 % minimum Dinitro-alpha-naphthol.
3. \*\*Regain - The loss of mass, when dried at 105 °C to 110 °C until its mass is constant, expressed as a percentage of the constant dry mass.

#### 6.4.3 Physical Tests

- a) The material shall be conditioned, prior to testing, in an atmosphere of 65% ± 2% relative humidity at 27 °C ± 2 °C for a period of not less than 48 hours.
- b) The mass and breaking load shall be in accordance with the values given in the schedule.

#### 7. PACKAGING AND MARKING

Packaging (preservation, identification and packing) shall be in accordance with the terms of the contract.

#### 8. WARRANTY\*

Stores supplied against this specification shall be deemed to bear warranty for 12 months from the date of receipt of stores at the consignee's end and against defective design/material /workmanship/performance. If during this period any of the stores supplied is found

defective, the same shall be rectified/replaced by the contractor, free of charge at the user's premises within a period of three months from the date of intimation of defect.

\* Not applicable when the store is manufactured in Ordnance Factories.

## **9. SAFETY OF OPERATIONS**

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

## **10. DEFENCE CATALOGUE NUMBER/NATO STOCK NUMBER**

The Defence Catalogue Number & Nato Stock Number allotted to this stores are:

<i>S. No.</i>	<i>Nomenclature</i>	<i>DCAN</i>	<i>NSN</i>
a)	Silk Gauze	8305-000 017	8305-7202 98072
b)	Cloth Silk Fine	8305-000 495	8305-7202 98159
c)	Cloth Silk Plain Weave Dyed	8305-000 013	8305-7202 98069
d)	Cloth Silk Twill Weave Undyed	8305-000 014	8305-7202 98070

## **11. SUGGESTIONS FOR IMPROVEMENT**

Any suggestion for improvement in this document may be forwarded to:

The Director,  
Directorate of Standardisation,  
Ministry of Defence,  
'H' Block, Nirman Bhawan PO,  
New Delhi - 110011.

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SCHEDULE

Description	Weave	Warp ends per decimeter	Weft picks per decimeter	Mass g per square metre (Method No. 1 of JSG 0114 refers)	Breaking load of material method No. 2(A) of JSG 0114, Test specimen 5 cm x 20 cm	
					Warp way Min.	Weft way Min.
Cloth Silk	Plain or twill	173 to 209	150 to 181	186.5 <i>Min</i> 282.6 <i>Max</i>	440 N	440 N
Fabric Silk, Fine	Plain	394 <i>Min</i>	394 <i>Min</i>	50.88 <i>Max</i>	320 N	320 N
Silk, Gauze	Leno, half leno or plain	276 <i>Min</i>	276 <i>Min</i>	50.88 <i>Max</i>	-	-

