

PROV/OCFS/SOCKS/ARMY/NEW64(a)

Supersedes Prov. Specn. : PROV/OCFS/SOCKS/ARMY/NEW(64)

Drawing Plate Attached :-01

GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
DGOF ORGANISATION

PROVISIONAL SPECIFICATION

FOR

SOCKS MEN'S WOOL DARK OLIVE GREEN

PROV. SPECN NO:- PROV/OCFS/SOCKS/ARMY/NEW 64(a)

Size: Small, Medium & Large

DS Cat No. NIV

Issued by:-

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RESTRICTED

(i)

RECORD OF AMENDMENTS

AMENDMENT NO. & DATE	AMENDMENT PERTAINS TO CLAUSE NO.	DETAILS OF AMENDMENT	AMENDMENT CARRIED OUT BY NAME & DESIG WITH SIGN. & DATE

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0.0 FOREWORD

0.1 This Deptt. Specification No. PROV/OCFS/SOCKS/ARMY/NEW64 (a) has been prepared by the General Manager, Ordnance Clothing Factory, Shahjahanpur on behalf of Director General Quality Assurance, Ministry of Defence, New Delhi-110011.

0.2 This Specification supersedes Specification No. PROV/OCFS/SOCKS/ARMY/NEW(64)

0.3 This specification shall be used for tender enquiry, procurement, manufacture, & quality assurance of the items covered by this specification.

0.4 Quality Assurance Authority for the store covered by this specification is General Manager, Ordnance Clothing Factory, Shahjahanpur. Enquiries regarding this specification, related to technical or any other contractual conditions shall be referred to the Quality Assurance Authority mentioned above/name in the tender or contract.

0.5 Any additional information with respect to Brief History of the specification, its feature, warning / security aspects and layout should also be incorporated in the specification

0.6 This specification is liable to amendment at any time and therefore in applicable only to specific enquiry made at any time. For any subsequent enquiry, a fresh copy of the specification is to be obtained.

0.7 This is a restricted document and therefore should not be communicated to anyone who is not authorized to use it.

0.8 Copy of any other reference documents such as specification / drawing / instruction / Guides can be obtained from -

The General Manager
Ordnance Clothing Factory
Shahjahanpur-242001

1.0 SCOPE

1.1 This Specification covers the requirements of Socks Men's Wool Dark Olive Green against defence requirements and provides guidance to contractors / suppliers, manufacturers Quality Assurance agencies and stockiest / indentors etc.

2.0 RELATED SPECIFICATIONS/REFERENCES

2.1 Reference is made in this Specification to :-

IS 744:1977	Method for determination of Wool
(Second Revision)	Fibre Diameter – Projection
Reaffirmed 1987	Microscope Method

IS 766:1983 (First Revision) Reaffirmed 1988	Method for determination of colour Fastness of textile materials to Rubbing
IS 971:1983 (First Revision) (Amendment No.1) Reaffirmed 1993	Method for determination of colour Fastness of textile materials to Perspiration
IS 1390:1983 (First Revision) Reaffirmed 1988	Methods for determination of pH Value of aqueous extracts of textile materials
IS 1966:1975 (First Revision) Reaffirmed 1993	Methods for determination of Bursting strength and bursting Distention of fabrics – Diaphragm method
IS 2005:1988 (First Revision) (Amendment No.1) Reaffirmed 1993	Method for quantitative chemical Analysis of binary mixtures of nylon 6 or nylon 6.6 fibres and certain other fibres
IS 2006:1988 (Second Revision) (Amendment 1) Reaffirmed 1993	Method for quantitative chemical Analysis of binary mixtures of Protein fibres with certain other Non-protein fibres
IS 2187 : 1982 (Second Revision) (Amendment No. 1) Reaffirmed 1993	Wool Socks
IS 2360 : 1977 (Second Revision) (Amendment No. 1) Reaffirmed 1993	Jersey , Y- Neck, Plain-knitted, Worsted
IS 2454:1985 (First Revision) (Amendment No.1) Reaffirmed 1993	Methods for determination of Colour Fastness of textile materials to artificial light (Xenon lamp)
IS 3330:1988 (Second Revision)	Wool- Cotton Vests

IS 3361:1979
(First Revision)
(Amendment No. 2)
Reaffirmed 1992

Method for determination of
Colour Fastness of Textile
materials to washing: Test 2

IS 4905:1968
(Amendment No. 1)
Reaffirmed 1991

Methods for random sampling

IS 5911:1977
(First Revision)
Reaffirmed 1992

Fineness grade of wool

PROV/OCFS/SOCKSYARN OG / 64(a):- Yarn Worsted 80 Tex/3 and 80 Tex Dark OG

2.2 Copies of IS specification can be obtained on payment from Bureau of Indian Standard 9, Bahadur Shah Zafar, New Delhi-110022 or their regional officer/Branch office.

2.3 The copies of IND/GS and IND/TC specification / Drawing can be obtained on payment from Controllerate of Quality Assurance (General Stores) Post Box No. 127 Kanpur and Controllerate of Quality Assurance (Textiles & Clothing) Post Box No. 294, Kanpur respectively.

3.0 TERMINOLOGY, DEFINITIONS AND SYMBOLS

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

4.0 STANDARD PATTERN

4.1 The Standard Pattern of Socks Men's Wool Dark Olive Green in 64s held by "The General Manager, Ordnance Clothing Factory, Shahjahanpur" shall constitute the standard as regards any particulars or properties not defined in this specification.

5.0 MATERIAL

5.1 The socks shall be manufactured from Worsted Yarn composed of 70 percent virgin wool, 15 per cent virgin nylon staple and 15 per cent virgin viscose staple fibre calculated on the oven dry mass basis. The detailed technical particulars of the individual components are given below:-

i) Wool

Imported Wool of 64s grade shall be used. The average fibre length shall be not less than 80 mm.

ii) Nylon Staple fibre

The fibre shall be crimped Nylon 6 or Nylon 66 of 0.33 to 0.44 Tex and staple length between 80 to 120 mm

iii) Viscose Staple fibre

The fiber shall have a fineness of 0.33 to 0.44 Tex and staple length between 80 to 120 mm.

iv) Wool Tops

Good quality virgin imported wool shall be used for the production of tops which shall be well carded and combed twice to ensure thorough blending and elimination of short length and kumpy fibres. The combing shall be done once before dyeing and again after dyeing. The wool, nylon and viscose tops shall be dyed individually to same depth and tone with fast colours and then blended.

v) Knitting and Splicing Yarns

The 80 tex x 3 and 80 tex worsted yarns for knitting and splicing the socks shall be spun from recombed tops of wool, nylon and viscose rayon. The resultant yarns shall be of uniform diameter and smooth appearance. These shall be free from neps, slubs and missing ply or any other processing defects. Single Ply of Yarn should be free from knots and folded Yarn should be reasonably free from knots and both shall be compatible to run on computerized knitting machines at high speed.

6.0 PROCESSING

6.1 Socks Men's Wool Dark Olive Green Shall be manufactured to the shape and design as shown in the relevant drawing/ specification. They shall be well knit and shall be seamless with secure 4 course welt made in two steps of two courses each. The top of the socks shall be knitted in 1x1 rib and the leg and foot portion shall be knitted plain.

6.2 The rib top and leg portions of the socks shall be joined by transferring loop for loop without sewing or seaming. The socks shall be spliced throughout the foot and leg up to the portion marked in Drawing Plate attached up to the line. The splicing shall be even, free from creases and fold, and similar in construction to the fabric of the socks. The socks shall be linked over the toe, and the linking shall be elastic, smooth and free from lumps & knots. The free ends of the linking yarn and other loose ends if any shall be between 13 mm and 25 mm in length and shall not pull out when the socks are stretched to the limit.

7.0 DIMENSIONS AND TOLERANCES

7.1 The socks shall conform to the schedule of measurements given in Appendix "A" at sl. No.13. (Note:- Size of the socks is defined by Small, Medium and Large.)

8.0 WORKMANSHIP AND FINISH

8.1 The socks shall be well scoured and free from soap, oil, grease or any other impurities used during the manufacture.

8.2 They shall be boarded to the size marked on them and pressed. They shall not be over boarded.

8.3 In appearance, shade, general workmanship, feel and in all other respects not noted / defined in this specification the socks shall conform to the standard pattern held in the custody of The General Manger, Ordnance Clothing Factory, Shahjahanpur.

8.4 In addition the socks shall be free from fabrication defects which would significantly mar the appearance or affect the serviceability of the socks.

It include :-

- (a) Large mend
- (b) Ladders
- (c) Improper splicing
- (d) Ridges
- (e) Strips
- (f) Rough or greasy feel.
- (g) Holes and cuts
- (h) Prominent stains

9.0 PRE- INSPECTION BY PRODUCER

9.1 Advance Samples:- If manufacturers have to submit advance samples manufactured from approved materials for inspection, testing. Trail/clearance by AHSP prior to commencement of bulk production. Number of samples required for material dimensional check and test/proof shall be intimated in consultation with AHSP.

9.2 Manufactures / contractors must satisfy themselves first by carrying out thorough pre-inspection of each lot/batch, that the store manufactured are accordance with the contract and fully confirm to the specification, before testing to QA officer nominated under the terms of contract.

9.3 A declaration by the contractor that a necessary pre-inspection has been carried out on the stores tendered and the same are ready for inspection/testing and shall be rendered along with the challan. The declaration shall include the method followed in pre-inspection showing the features checked/tested and the test report be submitted along with challan.

9.4 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 bulk 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 this specification.

10.2 The dimensions, mass, wales and courses shall be tested as per Appendix "A" to IS:2187.

10.3 In addition, the following tests shall be carried out in accordance with the respective IS standard method or appendix indicated against each.

Sl. No.	Characteristics	Requirements	Method of test
a)	Composition, %	Wool 67-73 Nylon 13-17 Viscose 13-17	IS 2006 (Oven Dry) IS 2005 (By difference)
b)	Quality of Wool when determined from finished stores	64s (As per IS 5911 except clause 1.2)	IS 744
c)	pH value of aqueous extract	5.0 to 7.5	IS 1390 (Cold Method)
d)	Scouring loss %, max 4		IS 2360 (Clause A-6)
e)	Relaxation / Shrinkage of foot and leg length, percent, Max	5	IS 3330 (Clause A-5)
f)	Bursting Strength foot portion, kPa, Min	1000	IS 1966
g)	Dimensions, mass, courses, total No. No. of needles	As per Appendix 'A' attached	-
h)	Colour fastness to		
	i) Light	Rating 4 or better	IS 2454
	ii) Washing	Rating 4 or better	IS 3361
	iii) Perspiration	Rating 4 or better	IS 971
	iv) Rubbing	Rating 4 or better	IS:766

11.0 PRODUCT SPECIFICATION

11.1 (Sampling Plan inspection clauses 12.4 as definition of lot, no.of samples from lot, no. of tests, method of selection of samples method and criteria for acceptance and method of interpretation of test result etc. as per Clause No. 13.0)

12.0 SAMPLING PROCEDURE

12.1 Sampling of stores shall be carried out by adopting as per sampling plans.

12.2 The Classification levels of sampling AQL fixed by AHSP to be strictly adhered.

12.3 Sample size will depend on the chosen AQL./The defects/Parameters grouped in two or more classes, critical, major and minor, separate plan shall be chosen for each class of defects/parameters (if already laid down by AHSP then reflect that plan).

The manufacturer shall arrange the units of the homogeneous lot in such a way that all the units are easily accessible to the Quality Assurance Officer to enable him to draw samples from any portion of the homogenous lot.

Sampling of stores shall be done by adopting appropriate sampling method as per IS 4905 so that samples drawn as per respective column 2 of sampling plan for assessing various quality requirements are truly representative of the lot.

12.4 SCALE OF SAMPLING

The number of sample units to be drawn for assessing the quality of the store, characteristic wise should be in accordance with column 2 for dimensional / non-destructive/visual inspection and column 4 for detailed laboratory testing, column 6 for chemical and other time consuming parameters. Table along with necessary explanation are given below.

Sampling Plan

{Based on 4% AQL, Authority ISO: 2859-I-1999 & IS 2500(Pt-I):2000}

Lot Size in Boxes/bales	Visual Parameters/ examination/ dimension check at the time of sampling		Physical Parameters (For Laboratory Tests)		Chemical Parameters and other physical parameters requiring long testing time(For Laboratory Tests)	
	Gen. Insp. Level-II		Spl. Insp. Level S-4		Spl. Insp. Level S-2	
	Sample Size	Ac No.	Sample Size	Ac No.	Sample Size	Ac No.
1	2	3	4	5	6	7
Up to 150	20	2	8	1	3	0
151-280	32	3	13	1	5	0
281-500	50	5	13	1	5	0
501-1200	80	7	20	2	5	0
1201-3200	125	10	32	3	8	1

- Note: (i) Samples drawn at random as per IS 4905 as per column (2) to be first examined visually. If found satisfactory, the samples for lab testing as per column (4) be drawn out from the samples originally drawn as per column (2) by the sampling officer and marked by him accordingly.
- (ii) Samples for lab testing will be drawn from the samples drawn as mentioned in column (2) only.
- (iii) For Chemical parameters samples to be drawn at random as per IS: 4905 from those samples drawn as per column (4).

13.0 CRITERIA FOR CONFORMITY

13.1 The lot shall be considered to be in conformity with the required standard, if the sample drawn for lab test, static and dynamic inspection and on visual examination is found satisfactory.

13.2 The reject stored stores shall be marked in such a way that the same can not be re-offered/mixed with accepted stores.

14.0 TEST METHOD

14.1 Only approved test method shall be used to ensure high degree of reproductively and repeatability, standardised and published test methods by leading technical societies, trade association and Govt. agencies may be referred.

15.0 MARKING

- 15.1 Each pair of Socks shall be provided with self-adhesive stickers with following details:-
- Manufacture Name /Trade mark
 - Nomenclature of store
 - Year of manufacture
 - Composition of material in descending order
 - Cat No.
 - Bilingual Washing instructions
 - Space for QA stamp

16.0 PRESERVATION & PACKING :-

16.1 The store Socks Men's Wool Dark Olive Green should be packed with stand transit hazards. Such as mechanical damage, effects of temperature, humidity including salty atmosphere, biological attack including fungi and pest. In addition to above the packing shall be in accordance with the terms of contract.

16.2 Packing material and method of packing as per PMS No. 2008(Amendment 3).

17.0 TECHNICAL LITERATURE/DOCUMENTS:-

17.1 Illustrated spare parts list, history sheet/maintenance manual shall be supplied with each store wherever required/ demanded.

18.0 WARRANTY

18.1 The stores supplied against this Specification shall be deemed to bear a warranty of the contractor against defective design material, workmanship and performance for a period of 12 months from the date of receipt of stores at consignee end and shall be replaced immediately with serviceable stores at site free of charge or as decided by purchasing officer on recommendation of consignee/ Quality Assurance authority if found defective.

19.0 DEFENCE STORE CATALOGUE NO.:-

19.1 The stores covered by this Specification shall bear the following DS Cat No.

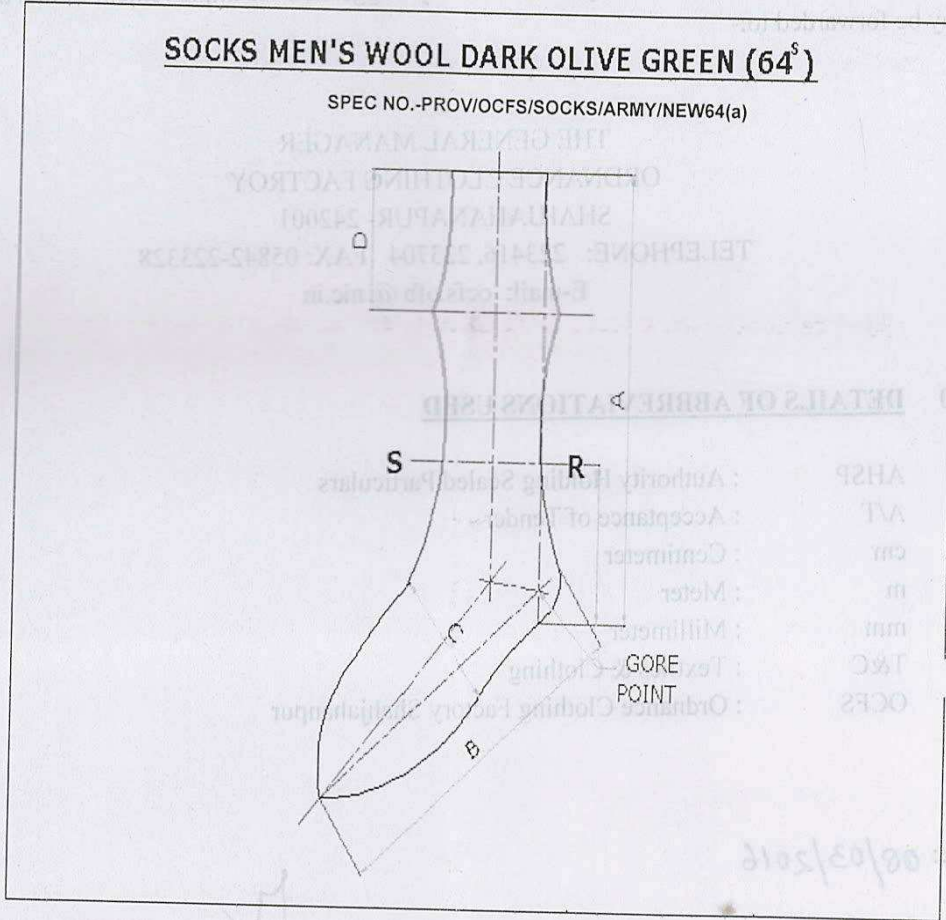
Sl. No.	DS Cat No.	Nomenclature
1	NIV	Socks Men's Wool Dark Olive Green

20.0 DRAWINGS / SKETCHES

20.1

SOCKS MEN'S WOOL DARK OLIVE GREEN (64^o)

SPEC NO.-PROV/OCFS/SOCKS/ARMY/NEW64(a)



21.0 SUGGESTION FOR IMPROVEMENT

21.1 This specification is a live documents and subject to change/updating Any suggestion for improvement of this document may be sent to Any Suggestion for improvement of this document may be forwarded to:-

THE GENERAL MANAGER
ORDNANCE CLOTHING FACTROY
SHAHJAHANAPUR- 242001
TELEPHONE: 223416, 223704 FAX: 05842-223328
E-mail: ocfs.ofb @ nic.in

22.0 DETAILS OF ABBREVIATIONS USED

AHSP : Authority Holding Sealed Particulars
A/T : Acceptance of Tender
cm : Centimeter
m : Meter
mm : Millimeter
T&C : Textiles & Clothing
OCFS : Ordnance Clothing Factory Shahjahanpur

Date: 08/03/2016

Place: Shahjahanpur

FOR GENERAL MANAGER/OIC
ORDNANCE CLOTHING FACTROY
SHAHJAHANAPUR- 242001

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APPENDIX 'A'SCHEDULE OF MEASUREMENTS AND MASS

Size No.	Measurements in centimeter				Total No of needles	No of courses per 5 cm (Spliced portion)	Diameter of machine in cm (approx)	Mass per 10 pairs in kg (Min)	Length of Splicing
	Length of		Width of foot at centre 'C'	Depth of Rib to 'D'					
	Leg 'A'	Foot 'B'							
1	2	3	4	5	6	7	8	9	10
24 SMALL	29	24	10	10	76	23	10	0.92	13
27 MEDIUM	32	27	10	11	80	22	10	1.13	14
30 LARGE	34	30	11.5	12	84	21	11.5	1.34	14
Tole. \pm	2.5	± 0.5	± 0.5	-	-	-	-	-5.0%	± 0.5

Method A-2 of - - - - - A-3 of
Of test IS 2187 IS 2187

* A tolerance of -5 % in the mass of the individual pair of the socks shall be permissible provided the average mass per ten pairs is maintained.

Note :-

1. A tolerance of ± 1 cm in the length of leg will be permissible while pairing
2. All measurements shall be taken on flat smooth surface without stretching at the positions indicated in the Drawing attached to this specification.
3. The mass specified shall be obtained after conditioning the sample for 40h in an atmosphere of 65 ± 2 % RH relative humidity and a temperature of $27^\circ\text{C} \pm 2^\circ\text{C}$ and the mass of individual pair shall not be below 5 per cent of the specified.