

# PRIVATE SPECIFICATION

Prepared for



**SOUTH AFRICAN AIRWAYS**

A STAR ALLIANCE MEMBER 

**GCC & FDC MEN'S SOCKS**

**Document Number: SAA 919**

**Item Number: CO22**

**Version 01.0/April 2014**

# 1. Scope

This specification<sup>1</sup> covers the requirements for cotton/polyamide office wear socks suitable for use for the personnel of South African Airways.

# 2. Definitions and Abbreviations

For the purposes of this specification, the definitions given in SANS 10004 and the following definitions apply:

|                               |                                                                                                                                                          |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>acceptable:</b>            | acceptable to South African Airways                                                                                                                      |
| <b>automatic toe closure:</b> | acceptable method of effecting closure of the toe and instep sections of the sock                                                                        |
| <b>lot:</b>                   | quantity of socks of the same colour, size designation and finish, produced by one manufacturer and submitted at any one time for inspection and testing |
| <b>nominal:</b>               | subject to the tolerances normal to good manufacturing practice                                                                                          |

# 3. Style

The style is as follows:

- ♦ A quarter-hose design consisting of a
  - ribbed top supported by elastic splicing
  - plain-knitted leg and instep
  - plain-knitted heel, sole and toe

# 4. Client furnished materials

No materials will be supplied by SAA.

# 5. Component materials

The following materials shall be supplied and used by the manufacturer.

**NOTE:** All components listed below shall be manufactured in the Republic of South Africa. In instances where the raw material and/or finished components are not available in the Republic of South Africa, the onus shall be on the bidder to apply for exemption certificates from DTI. Exemption certificates, where relevant, shall be submitted together with each bid.

<sup>1</sup> This private specification has been compiled by National Private Specifications (Pty) Ltd. [privatespecs@vodamail.co.za](mailto:privatespecs@vodamail.co.za)

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## 5.1 Yarn

**Ground yarn:** Bulk continuous filament nylon, determined by visual examination and AATCC method 20.

Recommended yarn linear density: 78 x 2 dtex, determined by SANS 6103.

**Plating yarn:** 2 ends spun 100% cotton, determined by AATCC method 20.

Recommended yarn linear density: 34 tex, determined by SANS 6103.

**Elastic splicing yarn:** Elastomeric or rubber core covered with bulk continuous filament nylon thread, determined by physical separation and AATCC method 20.

Colour to be an acceptable match in terms of SANS 10076-4 "The assessment of defects in textile piece-goods and made-up articles, Part 4: Defects in knitted piece-goods" to Colour No 400c-2012 "Jet black" of CKS 129 "Colours for textiles"

## 5.2 Socks

After conditioning in accordance with SANS 70, socks shall comply with the requirements given in tables 1 and 2.

**Table 1 — Constructional requirements**

| 1                                                                                                                                                             | 2           | 3                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Property                                                                                                                                                      | Requirement | SANS number<br>(unless otherwise indicated)                                                                                                               |
| <b>Overall composition, %, nominal</b>                                                                                                                        |             | 1833-1 and 1833-7                                                                                                                                         |
| Cotton .....                                                                                                                                                  | 70 ± 3      |                                                                                                                                                           |
| Polyamide .....                                                                                                                                               | 30 ± 3      |                                                                                                                                                           |
| <b>Number of courses per cm</b> .....                                                                                                                         | 8,0 – 8,5   | 5275 <sup>a</sup>                                                                                                                                         |
| <b>Design</b>                                                                                                                                                 |             | Physical examination                                                                                                                                      |
| Top .....                                                                                                                                                     | 3 x 1 rib   |                                                                                                                                                           |
| Leg and instep .....                                                                                                                                          | Plain       |                                                                                                                                                           |
| Heel, sole and toe .....                                                                                                                                      | Plain       |                                                                                                                                                           |
| <b>Position of elastic splicing</b> .....                                                                                                                     | Ribbed top  | Physical examination                                                                                                                                      |
| <b>Depth of elastic splicing, mm, min.</b> .....                                                                                                              | 40          | 5369                                                                                                                                                      |
| <b>Dimensions, mm</b>                                                                                                                                         |             | 5369                                                                                                                                                      |
| <b>Length (nominal) of top</b> .....                                                                                                                          | 40          |                                                                                                                                                           |
| <b>Length of leg (including top) <sup>b</sup></b> .....                                                                                                       | 260         |                                                                                                                                                           |
| <b>Length of foot <sup>c</sup></b> .....                                                                                                                      | 260         |                                                                                                                                                           |
| <b>Stretched width, mm, min.</b>                                                                                                                              |             | As described in                                                                                                                                           |
| Top .....                                                                                                                                                     | 220         | SANS 1382-1                                                                                                                                               |
| Mid-leg (between top and heel) .....                                                                                                                          | 220         |                                                                                                                                                           |
| <b>Nominal mass per 10 pairs, g</b> .....                                                                                                                     | 400         | Determine, to an accuracy of 1 part in 500, the mass of each pair of hose of the same size, and calculate, for each size, the mass per 10 pairs in grams. |
| <sup>a</sup> Determined on the centre portion of the leg.<br><sup>b</sup> Subject to a tolerance of ±10 mm.<br><sup>c</sup> Subject to a tolerance of ± 5 mm. |             |                                                                                                                                                           |

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**Table 2 — Performance requirements**

| 1                                                                                                                                                                                                                             | 2                             | 3                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------|
| Property                                                                                                                                                                                                                      | Requirement                   | SANS number<br>(unless otherwise indicated)                   |
| <b>Dimensional change on laundering</b> , %, max.<br>Leg .....<br>Foot .....                                                                                                                                                  | 5<br>5                        | 5370 for measuring and marking.<br>960:Proc D1, Drying Proc F |
| <b>Colour fastness to:</b><br><b>Light</b> , rating, min. ....<br><b>Perspiration</b> , rating, min.<br>Change in colour .....<br>Staining .....<br><b>Washing</b> , rating, min.<br>Change in colour .....<br>Staining ..... | 5<br><br>4<br>4<br><br>4<br>4 | 105-B02<br>105-E04<br><br><br>105-C10, Test B (2)             |

## 6. Workmanship

**The socks shall be:**

- ◆ made in accordance with sound manufacturing practice from clean and uniformly prepared yarns
- ◆ of uniform and acceptable make, colour and finish
- ◆ treated with Bioguard® to prevent the growth of odour forming bacteria
- ◆ acceptably boarded
- ◆ supplied in pairs
- ◆ so paired that the difference between the length of the feet does not exceed 5 mm, and any difference in the length of the legs (including the ribbed tops), does not exceed 10 mm
- ◆ at least equal in quality, handle and appearance to the sealed sample acceptable to South African Airways

**Shall be free from:**

- ◆ defects that impair their appearance or could impair their serviceability (or both)
- ◆ spots
- ◆ stains that might have occurred during manufacture

## 7. Size

**The boarded socks shall be suitable for**

- ◆ shoe size 7 — 10

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## 8. Make

Toe closure shall be

- ♦ by automatic toe closure or mock linking (e.g. Rosso linking)

## 9. Seams

Automatic toe closure seams shall be

- ♦ extensible to prevent cracking and undue shrinkage
- ♦ flat enough to prevent discomfort

## 10. Label

Each label attached to a pair of socks shall:

- ♦ be a cardboard printed label die cut to 205 mm x 70 mm, creased and punched and incorporating a plastics hanger
- ♦ provide appropriate care instructions (in accordance with SANS 10011 "Care-labelling of textile piece-goods, textile articles and clothing") in words and symbols
- ♦ provide the fibre composition of the fabric in accordance with the requirements of SANS 10235 "Fibre content labelling of textiles and textile products"
- ♦ information to be in legible and indelible block letters of height at least 3 mm
- ♦ include the following information:
  - the size designation
  - the item number
  - the item description
  - the month and year of manufacture
  - the order number
  - the year and month of manufacture
  - the VAT no of the contractor
  - the country of origin, i.e. "Made in the RSA"

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# 11. Packaging and marking of packaging

## 11.1 Packing

Socks shall be made up in pairs. Each pair shall be

- ◆ enclosed with a cardboard label described in clause 10
- ◆ delivered in a clean and commercially dry condition and packed together in a bulk container

## 11.2 Marking of bulk containers

Each bulk container shall have a label securely attached to the outside. This label shall be visible when the containers are stacked and shall provide the information in legible and indelible markings as follows:

- ◆ the manufacturer's name or trade mark or both
- ◆ the order number or contract number
- ◆ the item description
- ◆ the item number
- ◆ the quantity (in pairs) of the item
- ◆ the month and year of manufacture
- ◆ the order number
- ◆ the box number, e.g. "1 of 5"
- ◆ the total mass of the packed container

## 12.3 Additional marking

When so required by the South African Airways, socks, or containers (or any combination of these) to bear information additional to that specified above.

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## 13. Normative references

The following referenced documents are indispensable for the application of this document. All normative documents are subject to revision and, since any reference to a normative document is deemed to be a reference to the latest edition of that document, parties to agreements based on this document are encouraged to take steps to ensure the use of the most recent editions of the normative documents indicated below. Information on currently valid national and international standards can be obtained from the South African Bureau of Standards (SABS)<sup>2</sup>.

**AATCC Method 20**, *Fiber analysis – Qualitative.*

**CKS 129**, *Colours for textiles.*

**SANS 70**, *Conditioning of textiles and standard temperate atmosphere for determining their physical and mechanical properties.*

**SANS 105-B02/ISO 105-B02**, *Textiles – Tests for colour fastness – Part B02: Colour fastness to artificial light: Xenon arc fading lamp.*

**SANS 105-C10/ISO 105-C10**, *Textiles – Tests for colour fastness – Colour fastness to washing with soap or soda.*

**SANS 105-E04/ISO 105-E04**, *Textiles – Tests for colour fastness – Part E04: Colour fastness to perspiration.*

**SANS 960**, *Textiles – Dimensional stability during washing and drying procedures.*

**SANS 1382-1**, *Hose, Part 1: Men's and women's hose for institutional use.*

**SANS 1833-1/ISO 1833-1**, *Textiles – Quantitative chemical analysis – Part 1: General principles of testing.*

**SANS 1833-7/ISO 1833-7**, *Textiles – Quantitative chemical analysis – Part 7: Mixtures of and certain other fibres (method using formic acid)*

**SANS 5275**, *Wales and courses per unit length in knitted textile fabrics (Counting glass method).*

**SANS 5369**, *Dimensions of hosiery.*

**SANS 5370**, *Dimensional changes of hosiery during relaxation.*

**SANS 6103**, *Linear density of yarns in weft-knitted fabrics.*

**SANS 10004**, *Terms and definitions for textiles and textile merchandise.*

**SANS 10011**, *Care-labelling of textiles and clothing.*

**SANS 10076-4**, *The assessment of defects in textile piece-goods and made-up articles, Part 4: Defects in knitted piece-goods.*

**SANS 10235**, *Fibre-content labelling of textile and textile products.*

<sup>2</sup> South African Bureau of Standards: Tel. +27 (0) 12 4287911  
[www.sabs.co.za](http://www.sabs.co.za)

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# ANNEX A

(Normative)

## Special conditions of tender

### A-1 GENERAL

**A-1.1** Unless otherwise stated, the South African Bureau of Standards shall be the inspecting authority.

***Any applications for deviations from drawings or the specification, or any laid down process, treatment or procedures as set out in this specification, must be made to the SA Airways and verified by the SABS<sup>3</sup>. All applications must be submitted in writing.***

**A-1.2** The following shall have been submitted, inspected, tested and approved by the inspecting authority before bulk production is commenced:

- a) Ten pre-production pairs of socks.
- b) It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

NOTE: When new dye batches of yarn are to be used in production, two sample pieces of the knitted fabric, 30 cm x 30 cm – with the dye batch clearly marked – shall be tested and approved by the inspecting authority before the dye batch may be used in production.

**A-1.3** The socks shall be subject to inspection during the course of manufacture. The inspector shall, during normal working hours, be given all reasonable facilities for carrying out his duties and shall have the right of entry into the contractor's factory and the factory or works of any subcontractor where work on socks supplied to this specification may be in progress

**A-1.4** The contractor shall inspect the finished socks for compliance with the specification before submitting them to the inspecting authority for final inspection.

**A-1.5** Before acceptance, the socks shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

### A-2 DOCUMENTATION

One container of each consignment shall be marked "DOCUMENTS" and in addition to the socks, shall contain the following:

- a) The packaging slip or delivery note;
- b) where applicable the inspection certificate(s);
- c) a copy of the invoice containing the following information:
  - the order number
  - the financial authority number
  - a full description of the consignment, i.e. Item Number, quantity, etc

<sup>3</sup> **SABS Inspection Authority: (Tel) 012 4287371.**

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**ANNEX B**  
**(Normative)**  
**CKS 129 Colours**

Due to the fact that colours can change over a period of time, any colour standard which has been registered for a period of SEVEN YEARS or more shall be considered obsolete. These standards shall then be allocated an archived status (as opposed to current status) and re-registration shall be required.

**A. The following scenarios require a submission of knitted fabric panels (amount and size to be as stipulated by SABS) from the successful tenderer:**

1. A colour standard is archived.
2. First time registration is required (CKS 129 colour number does not exist).
3. Colour swatch stock at the SABS is no longer available.

**B. Requirements for the submission of fabric as identified in A:**

1. The colour shall be as agreed upon between the South African Airways and the successful bidder.
2. The fabric shall be used to make new colour swatches which shall be the responsibility of the SABS.
3. The cost of the three metres of fabric shall be incorporated in the relevant bid submission.

| HISTORY SHEET |            |                    |         |       |
|---------------|------------|--------------------|---------|-------|
| VERSION       | DATE       | AMENDMENTS/HISTORY | CHECKED |       |
|               |            |                    | NAME    | INIT. |
| 1             | April 2014 | First release      |         |       |
|               |            |                    |         |       |
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