

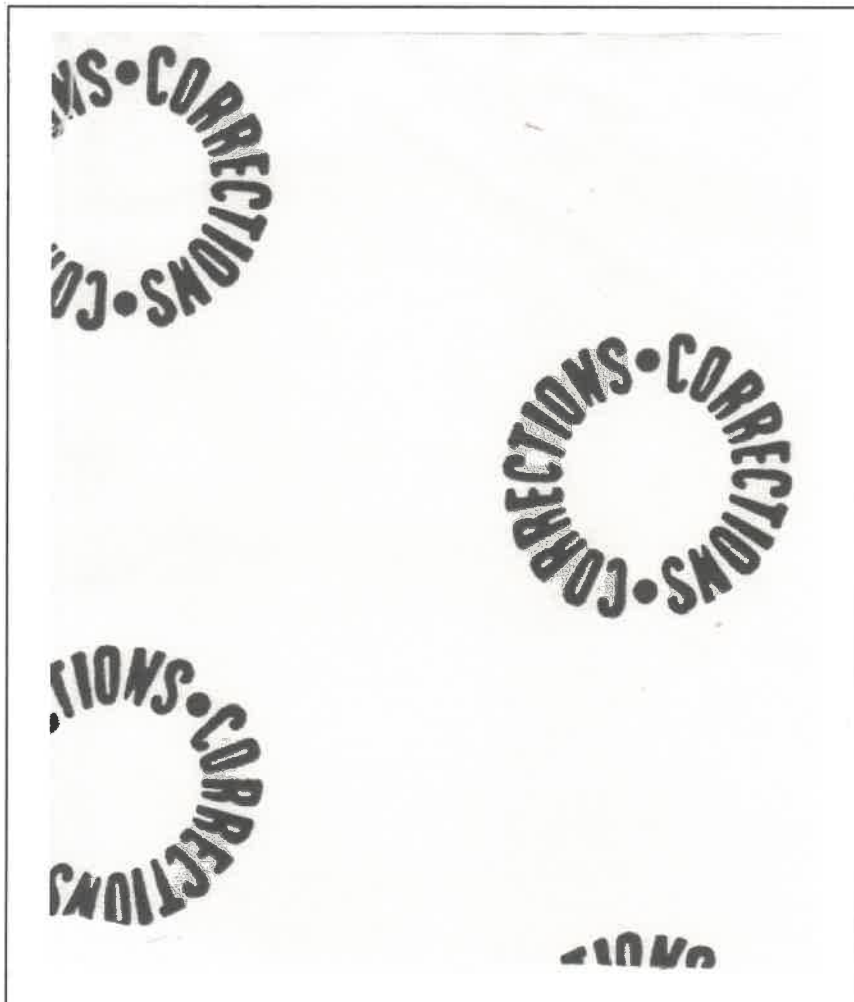
PRIVATE SPECIFICATION

Prepared for the

Department of Correctional Services



Corrections printed fabric



PS 1160

Revised June 2007

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1. Scope

This specification covers the requirements for a polyester-and-cotton piece-dyed and printed fabric for use in the manufacture of offenders' uniforms.

NOTES:

1. The following requirements shall be specified in tender invitations and in each order or contract:
 - a) the finish (see 4.1);
 - b) the width (see 4.3);
 - c) the colours (see 4.6);
 - d) the method of packing, if other than as specified (see 6.1), and
 - e) additional marking, if required (see 6.4)
2. Special conditions of tender (that cover the conditions of acceptance of the fabric) are given in the accompanying tender document.

2. Normative references

The following normative 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 Standards South Africa.

CKS 28, *Packs for textile goods.*

CKS 129, *Colours for textiles.*

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

SANS 79, *Textiles – Mass per unit area of conditioned fabrics.*

SANS 82, *Width of a textile fabric in a piece or roll.*

SANS 84, *Length of fabric in a piece or roll.*

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

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

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

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SANS 105-X12/ISO 105-X12, *Textiles – Tests for colour fastness – Part X12: Colour fastness to rubbing.*

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

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

SANS 1833-11/ISO 1833-11, *Textiles – Quantitative chemical analysis – Part 11: Mixtures of cellulose and polyester fibres (method using sulfuric acid).*

SANS 5091, *Bow and skewness in woven textile fabrics.*

SANS 5382 (SABS SM 382), *Textiles – Tearing strength of fabrics: wing-rip tear test.*

SANS 5726 (SABS SM 726), *Seaming properties of woven textile fabrics.*

SANS 5966, *Removable non-fibrous material content of textiles (scouring method).*

SANS 6116, *Resistance of textile fabrics to pilling and fuzzing (Random tumble method).*

SANS 7211-2/ISO 7211-2, *Textiles – Woven fabrics – Construction – Methods of analysis Part 2: Determination of number of threads per unit length.*

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

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

SANS 10076-1, *The assessment of defects in textile piece-goods and made-up articles – Part 1: Defects in woven piece-goods (cellulosic and cellulosic blends).*

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

SANS 11108 (SABS SM 1108), *Washing pretreatment of textile fabrics.*

SANS 13934-1/ISO 13934-1, *Textiles – Tensile properties of fabrics – Part 1: Determination of maximum force and elongation at maximum force using the strip method.*

3. Definitions and Abbreviations

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

acceptable acceptable to the Department of Correctional Services

LAQ limit of acceptable quality as defined in SANS 10076-1

SANS South African National Standard

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4. Requirements

4.1 General

The fabric shall, when visually examined (see 5.1), be

- made in accordance with sound manufacturing practice from clean, evenly-spun yarns,
- singed and heat-set,
- dyed and printed,
- of acceptably uniform make, width, colour and finish,
- at least equal to the corresponding sealed sample that is acceptable to the Department Correctional Services, and
- delivered in a clean and commercially dry condition.

4.2 Selvedges

The selvedges shall, when visually examined (see 5.1), be straight and evenly woven.

4.3 Width

The minimum width between selvedges or between conspicuous stenter pin holes shall, when measured in accordance with SANS 82, be at least 148 cm. The overall width shall be at least 150 cm.

4.4 Piece length

Each piece shall, when measured in accordance with SANS 84, be as specified by Correctional Services.

4.5 Bow and skewness of the weft

Neither the bow nor the skewness of the weft of the fabric shall, when measured in accordance with SANS 5091, exceed the following limits:

- a) mean value: 3 % max.
- b) at any one place: 7 % max.

4.6 Colour and design

4.6.1 Colour

The base fabric shall be piece-dyed to an acceptable match, in terms of SANS 10076-1, to the colour specified by Correctional Services and shall preferably be one of the appropriate colours given in CKS 129.

The word 'CORRECTIONS' shall be printed on the piece-dyed fabric in a colour required by Correctional Services:

- ◆ White print on blue base fabric
- ◆ Black print on all other base fabric colours

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4.6.2 Print design

- ♦ The design of the word 'CORRECTIONS' shall be as given in figure 1 (all measurements are nominal)
- ♦ The repeat of the print shall be as agreed upon between the Department of Correctional Services and the supplier

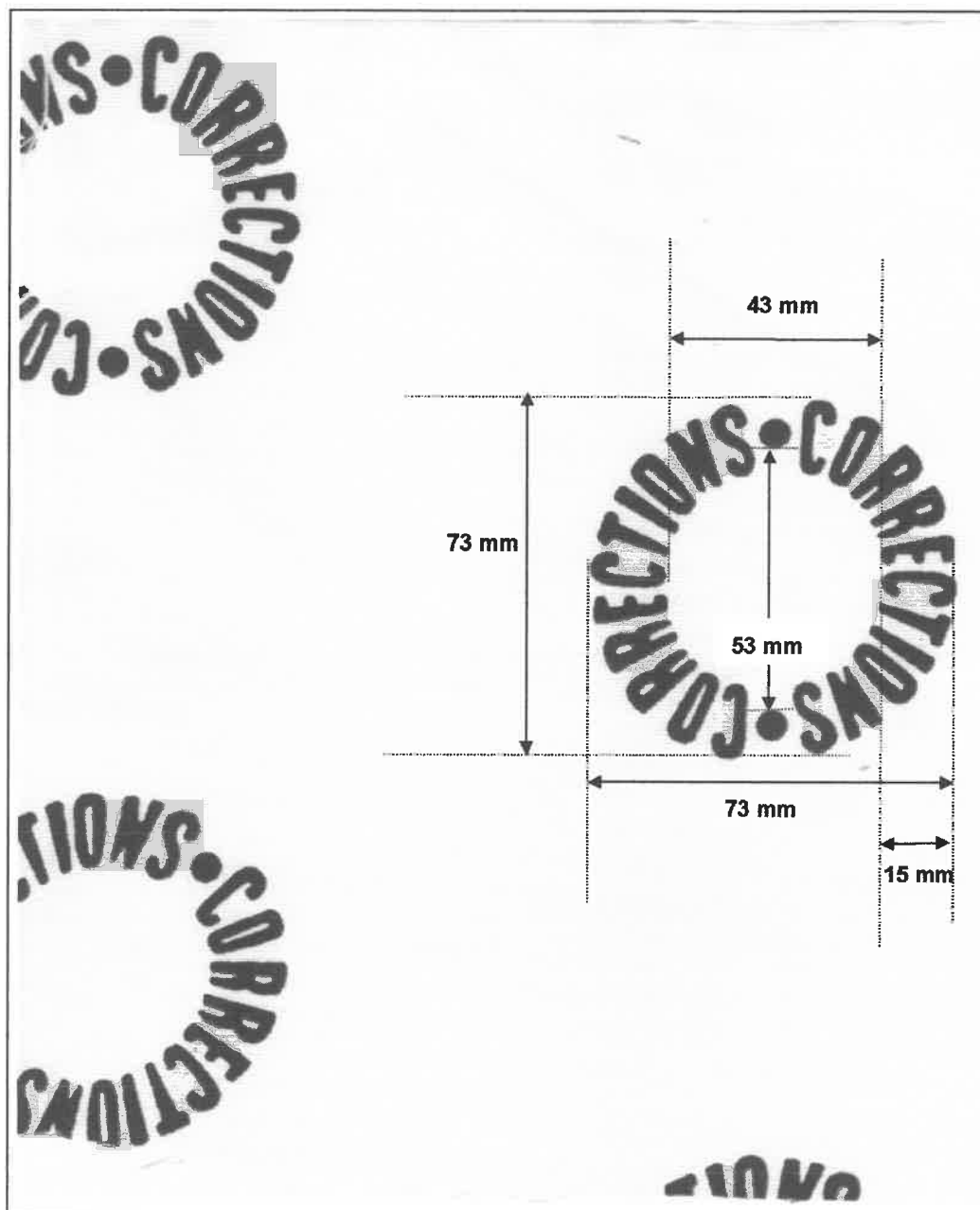


Figure 1 – Print design

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4.7 Fabric requirements

The fabric shall, when conditioned in accordance with SANS 70 and tested in accordance with the test methods given in column 3 of table 1, comply with the requirements given in column 2 of table 1.

4.8 Defects

The assessment and stringing of defects, and the deductions to be made for strung and unstrung defects, shall be in accordance with SANS 10076-1 and shall be based on the following LAQ's:

a) For pieces : 12

b) For a lot : 10

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Table 1 - Fabric requirements

1	2	3
Property	Requirement	Test method
Composition, %		SANS 1833-1 and SANS 1833-11
Polyester	50 ± 3	
Cotton	50 ± 3	
Weave	2/2 matt	Visual examination and physical analysis
Mass per area, (free from non-fibrous material), g/m², min.	220	SANS 79
Number of threads per centimetre^a, min.		SANS 7211-2
Warp	47	
Weft	23	
Breaking strength, N, min.		SANS 13934-1
Warp	1 000	
Weft	550	
Tearing strength, N, min.		SANS 5382
Warp	30	Express the result as the mean of the median peak values
Weft	30	
Resistance to opening at seams sewn parallel to the warp^b, N, min.	100	SANS 5726
Resistance to pilling^c, rating, min.	3,5 (slight)	SANS 6116
Removable non-fibrous material content, % max. ...	5	SANS 5966
Dimensional changes on laundering, % max.		SANS 960,
Warp and weft	2	Washing procedure A1 Drying procedure E
Colour fastness (dyed and printed) to:		
Light, rating, min.	4	SANS 105-B02
Washing, rating, min.		Test C (3) of SANS 105-C10:2007
Change in colour	4	
Staining of adjacent fabrics (single-fibre)	3-4	
Perspiration, rating, min.		SANS 105-E04
Change in colour	4	
Staining of adjacent fabrics (single-fibre)	3-4	
Rubbing, rating, min.		SANS 105-X12
Dry	4	
Wet	3-4	

^a Suitable yarn linear densities are given in annex A.

^b Tested in the as received state and after washing in accordance with SANS 960, procedure A1.

^c Tested after a washing pre-treatment using SANS 11108, procedure A. Rate the pilling at the end of the 30 min test.

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5. Inspection, testing and conditioning

5.1 Inspection and testing

After checking for compliance with the relevant requirements of clause 6, visually examine and measure each piece in the sample for compliance with the requirements given in 4.1, 4.2, 4.6, 4.7 (weave only) and 4.8.

5.2 Conditioning

Condition each test sample in accordance with SANS 70.

6. Packing, labelling and marking

6.1 Packing

Unless otherwise specified in the order or contract, each piece shall be rolled full-width (i.e. unfolded) and face inward on an acceptable tube and the rolls packed in accordance with the requirements of CKS 28. Only piece of the same width, colour and finish shall be packed together in a bulk container.

6.2 Fibre content and care labelling

Each roll shall have the correct fibre content labelling information indicated as specified in SANS 10235.

Each roll shall have appropriate care labelling information indicated in words and symbols as specified in SANS 10011.

6.3 Marking

6.3.1 Marking on plastic cover

The following information shall appear in legible and indelible marking on a label attached to the outside of each plastic cover:

- a) the manufacturer's name or trademark, or both;
- b) the lot number;
- c) the length of each roll; and
- d) the colours.

6.3.2 Marking of bulk containers

The following information shall appear in legible and indelible marking on a label attached to the outside of each container:

- a) the contents;
- b) the order or contract number;
- c) the total length in metres; and
- d) the colours.

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6.4 Additional marking

When so required, plastic covers and bulk containers shall bear information additional to that specified in 6.3.1 and 6.3.2

Annex A

(informative)

Suitable yarn linear densities

Table A.1 - Suitable yarn linear densities

1	2	3
Type	Tex	
	Warp	Weft
Fielddress	30	36

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