



DRAFT TANZANIA STANDARD

Textiles – Absorbent cotton gauze – Specification

Draft for Stakeholders' Comments Only

TANZANIA BUREAU OF STANDARDS

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Foreword

This Draft Tanzania Standard is being developed by the Hospital Textiles Technical Committee under supervision of the Textile and Leather Divisional Standards Committee and it is in accordance with the procedures of the Bureau.

In the preparation of this Draft Tanzania Standard, assistance was derived from:

IS 758:1975, *Specification for handloom absorbent cotton gauze (second revision)*.

British Pharmaceutical Codex 1973, published by the Pharmaceutical Society of Great Britain.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the result of a test or an analysis shall be rounded off in accordance with TZS 4 (see clause 2). The number of significant places retained in the rounded off value should be the same as that of the specified value in this Draft Tanzania Standard.

1 Scope

This Draft Tanzania Standard describes the constructional details and other particulars of absorbent cotton gauze bleached and non-medicated.

2 References

For the purpose of this Draft Tanzania Standard the following references shall apply:

TZS 3, Atmospheric conditions for testing

TZS 4, Rounding off numerical value

TZS 20, Textiles – Woven fabrics – Determination of the number of threads per unit length

TZS 21, Textiles – Woven or knitted fabrics – Determination of mass per unit length and per unit area

TZS 26, Textiles – Determination of the conductivity, pH, water soluble matter, chloride and sulphate in aqueous extracts

TZS 139, Textiles – Determination of linear density of yarn removed from fabric free from added matter

TZS 250, Textiles – Method for determination of absorbency of absorbent textile material

3 Terms and definitions

For the purpose of this Draft Tanzania Standard the following definitions shall apply

3.1 dressing material

materials applied to yarns during warp preparation such as size, stiffening or softening agents.

3.2 filling materials

non-substantive and generally insoluble materials such as China clay, gypsum etc; added to gauze together with starches or gums during finishing to add weight or modify the appearance and handling of the gauze.

4 Manufacture

4.1 Yarn

4.1.1 The yarn used to manufacture the absorbent cotton gauze shall be of the required quality to ensure that the gauze complies with the requirements of this Draft Tanzania Standard. The approximate count of warp and weft yarn is given in table 1.

4.2 Cloth

4.2.1. The cloth used to manufacture the absorbent cotton gauze shall be plain woven, bleached, and free from weaving defects, sizing, dressing and filling materials and any other substances liable to cause subsequent tendering.

Table 1 Particulars of absorbent cotton gauze

Type	Yarn count		Threads /dm (minimum)		Mass (grams /m ²)
	Warp	Weft	Ends	Picks	
Cotton gauze	23tex ±0.6	23tex ±0.6	80tex±3	60tex±3	32±4
Test method (see clause 2)	TZS 139		TZS 20		TZS 21

NOTE:

1. To convert metric count (Nm) to universal count in tex, divide 1000 by the metric count, and to convert cotton count (Ne) to tex, divide 590.5 by the cotton count.
2. Ends, picks, mass and breaking load specified, relate to the specific state of finish in which the gauze is delivered.

5 Requirements

5.1 Width of gauze

The width of the gauze shall be 40, 60, 90, or 100 cm with tolerances of ±5 %.

5.2 Length of gauze

Each gauze shall be one continuous piece. The normal lengths of gauze are 2, 5, 15, 20, or 30m with tolerances of ±5 %.

5.3 Fluorescent brighteners

The gauze shall not be treated with fluorescent brightening agents.

5.4 Ash content

The ash content shall not exceed 0.5 % by mass.

5.5 pH values

When tested in accordance with TZS 26 (see clause 2), the pH values shall be between 6.5 and 7.5.

5.6 Absorbency

When tested in accordance with TZS 250 (see clause 2), its sinking speed shall not exceed 10 seconds.

6 Marking

6.1 Each packet shall have a label marked with the following;

- a) Name and composition of the material.
- b) Country of origin
- c) Manufacture's name and site.
- d) Month and year of manufacture and expiry date.
- e) Bar code.
- f) Width in centimetres and length in meters and
- g) the word, 'NON STERILE'

7 Packing

The cotton gauze shall be packed as follows;

7.1 Rolls

Cotton gauze of different sizes as given in table 2, may be individually wrapped or rolled in a single layer of craft paper and securely sealed at both ends with gum tape to form a packet. These packets may be further packed in bales as indicated in table 2.

7.2 Cotton Gauze Pads

Cotton gauze pad consists of folded absorbent gauze. The number of layers (ply) of gauze in the pad and its dimensions vary according to surgical requirements, the usual size being 5, 7.5, and 10cm each of 12-, 16-, or 32- ply. Larger sizes and other plies are also prepared (see figure 1 for methods of folding cotton gauze pads).

7.2.1 Gauze pads should be enclosed in either well closed packages or sealed packages, according to the requirements of the user. The packages may contain more than one pad.

7.3 X- ray detectable cotton gauze pads

These are specially manufactured gauze pads for use in surgical operations. They can easily be detected using x-ray if mistakably are left in the operated body.

NOTE –

1 For all these three types of cotton gauze packing, waxed paper should not be used for any wrapping in contact with the cotton gauze, as it reduces the absorbency of the material.

2 For cotton gauze pads, ensure that loose ends are hidden inside when folding the pads as loose ends retard wound healing and even cause irritation.

Table 2 – Packing of absorbent cotton gauze

No	Gauze size in cm	No of dressings per packet	No of packets per bale
1	40x200	12	52
2	40x500	10	50

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3	60x2000	1	72
4	90x3000	1	36

7.4 The packets shall be wrapped with the following materials;

- a) One layer of waterproof paper or one layer of polyethylene film of 40 microns thickness. The polyethylene film or the waterproof paper shall have an overlap of at least 15 cm
- b) One layer of hessian paper, or a woven PE/PP of an acceptable quality overlapping at least 10 cm.

7.5 The outer layer of a bale, i.e. The hessian paper or PE/PP shall be securely sewn with at least 12 stitches per decimetre. The slats of timber approximately 80 mm wide and 12 mm thick shall be placed length wise along the edges of the bale and three steel baling hoops shall be used to tighten the bale and hold the slats in position. The hoops shall preferably be machine sealed and made firm by rivets.

8 Sampling and compliance with specification

8.1 Sample for testing

From the lot, draw in relation to the approximate lot size given in column 1 of table 3 the number of packets shown in column 2.

Table 3 – Sample for testing

1	2	3
Lot size packages	Sample for inspection of bulk containers	Acceptance number
1- 100	3	0
101-500	5	0
501-1000	7	1
1001-1500	8	2
1501-2000	9	3

8.2 Compliance

The lot shall be deemed to comply with the requirements of the specification if after inspection and testing of the samples taken in accordance with clause 8.1 no defect is found.

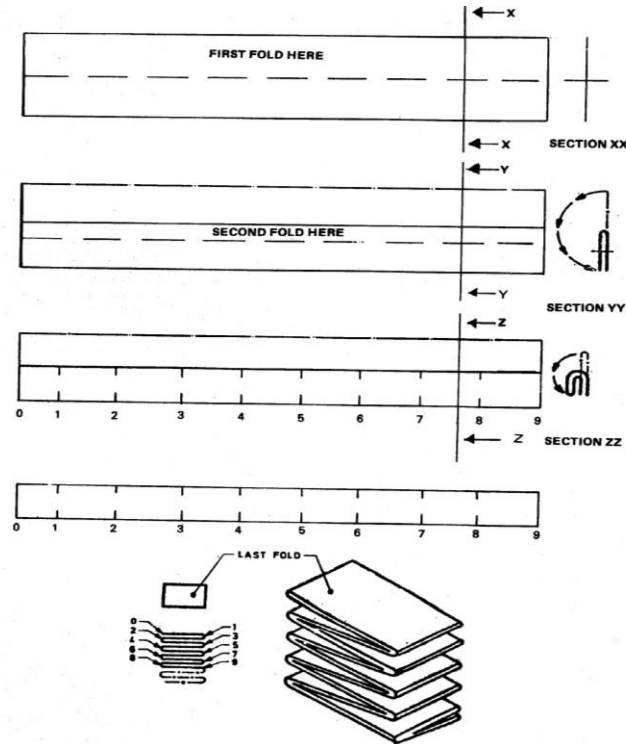


Figure 1 – Method of folding cotton gauze pads