



TDC9 CD₃ (596)
First Edition

DRAFT TANZANIA STANDARD

Textiles – Disposable Panty Liners — Specification

Draft for Stakeholders' comments only

Foreword

This Draft Tanzania Standard lays down basic requirements for disposable panty - liners in order to assist the manufactures to produce goods of defined quality and help in safe – guarding the interests of consumers.

This Draft Tanzania Standard specifies minimum requirements for disposable panty liners for external use.

Panty liners are designed to absorb and retain fluid discharges emanating from the vulvo-vaginal region and thus the need to develop this standard.

During the preparation of this standard, reference was made to the following document.

KS 2753: 2018 Disposable panty - liner — Specification

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1. SCOPE

This Draft Tanzania Standard, specifies requirements and test methods for disposable panty liners for external use.

2. NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

TZS 44: *Textiles – Method for determination of length and width of woven or knitted fabric*

TZS 279 - EAS 96, Sanitary towels — Specification

TZS 1823 - ISO 21149, Cosmetics — Microbiology — Enumeration and detection of aerobic mesophilic bacteria

TZS 1825, Cosmetics — Microbiology — Detection of *Escherichia coli*

TZS 1826 - ISO 22717, Cosmetics — Microbiology — Detection of *Pseudomonas aeruginosa*

TZS 1827 - ISO 22718, Cosmetics — Microbiology — Detection of *Staphylococcus aureus*

TZS 1830 - ISO 18416, Cosmetics — Microbiology — Detection of *Candida albicans*

ISO 9073-6, Textiles — Test methods for nonwovens Part 6: Absorption

3. TERMS AND DEFINITIONS

For the purposes of this standard, the following definition shall apply.

3.1 Non-woven

A fabric-like material made from long fibres, bonded together by either chemical, mechanical, heat or solvent treatment. The term is used in the textile manufacturing industry to denote fabrics, such as felt, which are neither woven nor knitted.

3.2 Panty – liner

An absorbent piece of material for feminine hygiene. They are related to sanitary pads, in their basic construction but are usually much thinner and narrower than pads. They are not suitable for medium to heavy menstrual flow rather than daily vaginal discharge, light menstrual flow, tampons and menstrual cup backup spotting, post – intercourse discharge and urinary incontinence.

4. MATERIALS

4.1 Absorbent filler

The filler material, such as cellulose pulp, cellulose wadding, tissue, cotton, etc, shall be free from lumps, oil spots, dirt or foreign material.

4.2 Covering

4.2.1 The covering of the absorbent filler shall be of good quality cotton or rayon knitted sleeving, gauze or non-woven fabric with sufficient porosity to permit the assembled pad to meet the absorbency requirements.

4.2.2 The covering shall be sealed so that it cannot unwrap from the filler during normal handling and use.

4.3 Protective barrier

The protective barrier shall be water resistant (no wetting of outer surface and no water penetration) when tested in accordance with Annex B.

5. Sizes

Sizes for disposable panty liners shall be as declared by the manufacturer with a tolerance of ± 5 mm.

6. MANUFACTURE, WORKMANSHIP AND FINISH

6.1 Manufacture

6.1.1 The absorbent filler material shall be arranged and neatly cut in the required size of the pad and form a uniform thickness throughout, without any wrinkle or distortion.

6.1.2 The absorbent filler material shall be placed in the covering in such a way that it does not cause lump formation as a result of sudden pressure.

6.1.3 The covering fabric of the panty liner shall cover the filler completely.

6.1.4 The panty liners shall have a non-absorbent barrier on one side which shall have an identifying thread or marking clearly indicating the side of the barrier as well as the effective area of absorbing.

6.1.5 When panty liners are claimed as disposable i.e. disposable in lavatories, they shall be manufactured from disposable material.

6.1.6 If cotton hose or gauze is used as covering, the instructions for the use of panty liners shall indicate that the non-absorbent barrier should be removed before flushing.

6.2 Workmanship and finish

6.2.1 The panty liners shall have a soft feel and when worn shall not chafe or give any uncomfortable feeling.

6.2.2 The panty liner shall be free from all sorts of foreign matter.

6.2.3 Securing mechanism

Any of the following may be used:

- a) loops or tabs which shall extend beyond the length of the filler material;
- b) adhesive strip or patch;
- c) wings with adhesive which shall be of sufficient length in such a manner as to form folds around the panty/brief for securing the panty liners when in use.

6.2.4 Freedom from defects

The panty liner when visually examined shall be free from defects, which affect the appearance and utility such as oil stains, dirt, soil particles and hard lumps.

6.2.5 Odour

The panty liner shall have no unpleasant odour either in dry state immediately after sampling from the packages or after wetting the sample with distilled water.

6.2.6 Texture

The panty liner shall be smooth and soft when felt by hand.

NOTE If harsh absorbent fillers or cover fabrics are used in the manufacture of panty liners, these may cause discomfort and body rashes on the delicate skin due to undesired friction.

7. PERFORMANCE REQUIREMENTS

7.1 Absorbency capacity

The panty liners shall absorb a minimum of 1 mL when tested by the method given in Annex A. Check for compliance with Table 1.

7.2 Liquid wicking rate

Use method in ISO 9073-6 and check for compliance with Table 1.

7.3 pH value

The panty liners shall be free from acidic and alkali material and the pH of the absorbent material shall be 5.5 to 8.5 when tested by the method given in TJS 26. Check for compliance with Table 1.

7.4 Microbiological requirements

The microbiological limits for panty liners shall be as given in Table 2 when tested in accordance with the test methods prescribed therein.

Table 1 – Performance requirements for Panty liners.

SN	Characteristics	Requirement	Test Method
1	Absorbency capacity	No leakage	Annex A
2	Absorbency rate(s) max.	10	Annex B
3	pH value	5.5 – 8.5	TJS 26
4	Florescence of filler material	None	Annex C
5	Size	As declared in the label with a tolerance of ± 5 mm	Measure by ruler
6	Quantity (Number of pieces)	As declared	Visual..

Table 2 – Microbiological limits for panty liners.

S/N	Quality	Requirement, cfu/g	Test method
1	Total viable count	<10	TZS 1823
2	<i>Pseudomonas Aeruginosa</i>	Not detectable per gram of sample	TZS 1826
3	<i>Staphylococcus Aureus</i>	<10	TZS 1827
4	<i>Candida Albicans</i>	Not detectable per gram of sample	TZS 1830
5	<i>Escherichia Coli</i>	Not detectable per gram of sample	TZS 1825

8. PACKAGING

8.1 Package

Panty liners shall be supplied in packages made of suitable materials, which are sealed so as to protect them from moisture, soiling and contamination during storage and transportation.

8.2 Primary package

8.2.1 Panty liners shall be supplied in packages made of suitable materials, which are sealed so as to protect them from moisture, soiling and contamination during storage and transportation.

8.2.2 Each primary package shall indicate number of panty liners.

Primary packages shall be supplied in secondary package made of suitable materials which are strong enough to hold the number of the declared primary packages.

9. MARKING

9.1 Primary Package

Labelling shall be legible, in English and or Kiswahili imprinted in indelible ink and shall have the following information:

- i) The manufacturer's name and/or registered trade mark;
- ii) The words "Panty Liner";
- iii) Date of manufacture and expiry date;
- iv) Country of origin stated clearly;
- v) Name of the product and production batch number;
- vi) Quality mark on the primary packaging at point of sale;
- vii) Instructions for use;
- viii) Instructions for storage and disposal;
- ix) Number of panty liners in a pack; and
- x) Words or symbol indicating whether flushable or not.
- xi) The word 'disposable'

9.2 Secondary package

The following information shall appear legibly and indelibly on the outside of each package;

- a) the manufacturer's name and/or registered trade mark;
- b) the words "panty liner".
- c) number of panty liners in a package.

Annex A
(normative)

Method for determination of absorbency capacity

A.1 Apparatus

A.1.1 Flat level surface.

A.1.2 Burette.

A.1.3 Metallic **block**, of mass 1 kg and dimensions 150 mm x 50 mm x 15 mm.

A.2 Reagents

1 % solution of potassium dichromate, made by dissolving 1 g K₂Cr₂O₇ in 100 mL distilled water.

A.3 Procedure

A.3.1 Lay the panty liner on a flat level surface.

A.3.2 Drip at the minimum 1.0 mL of the fluid (see A.2) on to the centre of disposable panty liner from a height of approximately 2 mm.

A.3.3 After the disposable panty liner has absorbed the full amount of fluid, place a metallic block of mass 1 kg (see A.1.3) for 1 min on the portion where the fluid was absorbed.

A.4 Test report

Observe the back and sides of the disposable panty liner for any leakage.

Annex B
(normative)
Method for determination of absorbency rate

B.1 Apparatus

B.1.1 Water tub, tub of depth at least 100 mm and maintained at room temperature.

B.1.2 Stop watch, with an accuracy of 0.2 s.

B.1.3 Cylindrical basket, weighing 2.7 ± 0.3 g, of height 80 mm, diameter 50 mm with square opening of 15 mm to 20 mm, made of copper wire of 0.4 mm diameter.

B.1.4 Weighing machine

B.2 Preparation of test specimens

Carefully isolate the absorbent filler material and weigh 5 g; insert into the basket.

B.3 Procedure

Drop the test specimen in a horizontal position into the water tub. Using the stopwatch, measure the time it takes the basket and its contents to sink below the surface of water in seconds. Record the absorption period to the nearest 0.1 s. Repeat the test for at least two test specimens.

B.4 Calculation

Calculate the arithmetic mean of the absorbency rate of the absorbent filler material tested.

Annex C
(normative)

Determination of fluorescence in panty liners

C.1 Principle

A layer of absorbent filler material is examined under ultra violet radiation for the presence of fluorescent brightening agents

C.2 Apparatus

C.2.1. Ultra-violet source

C.2.2 Scale, graduated in mm.

C.3 Procedure

Examine a layer of absorbent filler material of approximately 5 mm thick under ultra violet radiation of wave length 365 nm.

C.4 Test report

Bright fluorescence indicates the presence of fluorescent brightening agents.

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