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## **DRAFT EAST AFRICAN STANDARD**

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**Paper serviettes (napkins) — Specification**

**EAST AFRICAN COMMUNITY**

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## Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 065, Paper and paper Products.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

This second edition cancels and replaces the first edition (EAS 861:2017), which has been technically revised. The main changes compared to the previous edition are as follows:

- In Table 2, the units of Tensile strength have been changed to N/m
- The tensile strength values have been changed
- The tolerance for the number of sheets in clause 5.3 has been changed
- The water absorption rate has been edited in Table 2

## Paper serviettes (napkins) — Specification

### 1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for virgin, blended or recycled pulp paper serviettes (napkins) in sheet form used for hygienic purposes.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 187, *Paper board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples*

ISO 287, *Paper and board — Determination of moisture content of a lot — Oven-drying method*

ISO 6588-1, *Paper, board and pulps — Determination of pH of aqueous extracts — Part 1: Cold extraction*

ISO 8784-1, *Pulp, paper and board — Microbiological examination — Part 1: Enumeration of bacteria and bacterial spores based on disintegration*

ISO 12625-1, *Tissue paper and tissue products — Part 1: General guidance on terms*

ISO 12625-4, *Tissue paper and tissue products — Part 4: Determination of tensile strength, stretch at break and tensile energy absorption*

ISO 12625-6, *Tissue paper and tissue products — Part 6: Determination of grammage*

ISO 12625-7, *Tissue paper and tissue products — Part 7: Determination of optical properties — Measurement of brightness and colour with D65/10° (outdoor daylight)*

ISO 12625-8, *Tissue paper and tissue products — Part 8: Water-absorption time and water-capacity, basket immersion test method*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions and those in ISO 12625-1 shall apply.

#### 3.1

##### **cross direction (CD)**

direction in the plane of a paper perpendicular to the machine direction

#### 3.2

##### **machine direction (MD)**

direction of the paper corresponding to the direction of flow of the stuff on the paper machine

- 3.3 holder**  
package of paper serviettes (napkins) of the same dimensions and colour
- 3.4 lot**  
aggregate of paper serviettes (napkins) of a single kind and size and having same or different colours. A lot comprises of one or more similar cartons, each of which contains one, or more packages or boxes packed with paper serviettes/napkins of the same kind.
- 3.5 sheet**  
one or more plies of paper serviettes (napkins) in rectangular form
- 3.6 test unit**  
number of sheets taken for testing
- 3.7 hole**  
area in the sheet void of fibres and having a specified diameter

## **4 Requirements**

### **4.1 General requirements**

- 4.1.1** Paper serviettes (napkins) shall be made from processed virgin pulp, blended or recycled pulp.
- 4.1.2** Paper serviettes (napkins) shall be:
- a) soft absorbent or non-absorbent;
  - b) single ply or multi-ply;
  - c) coloured or white;
  - d) embossed in the case of non-absorbent serviettes (napkins) for handling foodstuffs;
  - e) creped, creped and embossed or printed in the case of soft absorbent serviettes (napkins); and
  - f) free from defects such as abrasive particles, lint, fibre bundles, holes and specks and manufactured and packaged under good hygienic conditions.

### **4.2 Specific requirements**

- 4.2.1** The paper serviettes (napkins) shall comply with the grammage requirements given in Table 1 when tested in accordance with the test method specified therein.

**Table 1 — Grammage for paper serviettes (napkins)**

Characteristic		Description of fibre composition	Requirement	Test method <sup>a</sup>
Grammage per ply, g/m <sup>2</sup> , Min.	Single ply	Pure (Virgin) fibre	17	ISO 12625-6
		Blended fibre	19	
		Recycled fibre	19	
	Multi-ply (measured as single ply)	Pure (Virgin) fibre	15	
		Blended fibre	17	
		Recycled fibre	17	

<sup>a</sup> Conditioning shall be done in accordance with ISO 187.

**4.2.2** The paper serviettes (napkins) shall comply with the requirements given in Table 2 when tested in accordance with the test method specified therein.

**Table 2 — Specific requirements for paper serviettes (napkins)**

S/No	Property		Requirement			Test method <sup>a</sup>
			Soft absorbent serviettes (napkins)		Non-absorbent serviettes (napkins)	
			Single ply	Multi-ply		
i	Tensile strength, N/m, Min.	CD	80	80	1 000	ISO 12625-4
ii		MD	150	300	1 800	
iii	Brightness, %, Min. (White serviettes)		73			ISO 12625-7
iv	pH		6 - 8			ISO 6588-1
v	Moisture content, %		4.5 - 7			ISO 287
vi	Water absorption rate, mm/min, Min.		20	20	-	ISO 12625-8

<sup>a</sup> Conditioning shall be done in accordance with ISO 187.

**4.2.3** The average number of holes less than 2 mm in diameter in sheets shall not exceed 10 per sheet.

## 5 Dimensional requirements

**5.1** The size of the paper serviettes (napkins) shall be as given in Table 3.



**Table 3 — Sheet dimensions**

S/No.	Type	Minimum size, mm	Minimum number of sheets
i	Soft absorbent serviettes (napkins) Single or multi-ply	200 by 200	Packaged in multiples of 25
ii	Non -absorbent serviettes (napkins)		

5.2 Tolerance on the declared size shall be  $\pm 3$  mm.

5.3 Tolerance on the declared number of sheets shall be  $\pm 2$  sheets.

## 6 Microbiological examination

Each paper serviette (napkin) shall comply with microbial requirements in Table 4 when tested in accordance with the method specified therein.

**Table 4 — Microbiological limits for paper serviettes (napkins)**

S/No.	Characteristic	Limit	Test method
i	Total plate count, cfu/g Max.	300	ISO 8784-1
ii	<i>Pseudomonas aeruginosa</i> , cfu/g	Not detectable in 1 g of the product	
iii	<i>Staphylococcus aureus</i> , cfu/g		
iv	<i>Candida albicans</i> , cfu/g		
v	<i>Escherichia coli</i> , cfu/g		

## 7 Sampling

### 7.1 General

The sampling shall be done in accordance with Table 5 to determine whether a lot complies with the relevant requirements of the specification. The samples so taken shall be deemed to represent the lot for the respective properties.

### 7.2 Sampling for paper serviettes (napkins)

Samples shall be drawn at random as indicated in Table 5 and tested for compliance with the requirements of this standard.

**Table 5 — Table of sample for inspection and test**

1	2	3	4
Lot size, holders	Sample for visual inspection		Sample for test, holders
	Bulk packages	Holders	
10 – 100	1	4	4
101 – 300	2	6	5
301 – 1 000	4	8	6
1 001 – 4 000	6	12	7
4 001 – 10 000	8	16	8
More than 10 000	11	22	9

## 8 Packaging and labelling

### 8.1 Packaging

Sheets shall be folded and shall be packed in holders. The number of sheets for each type is given in Table 3, Column 4 and shall not be less than the nominal quantity marked on the holder. Sheets of the same size and colour shall be packed together in a holder.

### 8.2 Labelling

#### 8.2.1 Holders

The following information shall be marked legibly and indelibly on the outside of each holder:

- name of the product as “Paper serviettes (napkins)”;
- manufacturer’s name and physical address and/or registered trade mark;
- number of plies;
- description of fibre composition (virgin, blended or recycled);
- number of sheets, size and colour (s). If more than one colour then the term multi-colour may be used in lieu; and
- country of origin/manufacture.

#### 8.2.2 Bulk packages

The following information shall be legibly and indelibly marked on the outside of each bulk packages:

- information required in 8.2.1 a) to f);
- number of holders in the bulk package; and
- batch number/code.

## Bibliography

KS 2000:2007, *Paper serviettes / napkins - Specification*

Public Review Draft

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