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## **DRAFT EAST AFRICAN STANDARD**

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**Paper hand towel sheets (multi-fold hand towels) — 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.

# Paper hand towel sheets (multi-fold hand towels) — Specification

## 1 Scope

This Draft East African Standard specifies the requirements, sampling and test methods for paper hand towel sheets used for general hygiene.

## 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 186, *Paper and board — Sampling to determine average quality*

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

ISO 12625-5, *Tissue paper and tissue products — Part 5: Determination of wet tensile strength*

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-absorption capacity, basket-immersion test method*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

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

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

### 3.2

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

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

- 3.3 sheet**  
individual hand towel sheet of a particular dimension as specified in the Standard
- 3.4 hole**  
an area in a sheet void of fibres and having a diameter that exceeds 4 mm
- 3.5 lot**  
packs of the same grade and color which have been manufactured from the same base material and under essentially the same conditions
- 3.6 ply**  
layer of single sheet
- 3.7 virgin paper**  
tissue made from virgin pulp
- 3.8 recycled paper**  
tissue made from recycled pulp
- 3.9 blended paper**  
tissue made from a mixture of virgin and recycled pulp
- 3.10 pack**  
group of paper sheets wrapped together

## **4 Classification of the product**

Classification of hand towel sheets shall be in accordance with the kind of paper and as follows:

- a) Virgin paper hand towel sheets not including any mechanical pulp;
- b) Recycled paper hand towel sheets; and
- c) Blended paper hand towel sheets.

## **5 Requirements**

### **5.1 Requirements for materials and manufacture**

#### **5.1.1 Ply**

The paper hand towel sheets shall comprise a single or multiple ply tissue paper.

#### **5.1.2 Hygiene**

Paper hand towel sheets shall not at any time during the manufacture and packing be exposed to conditions that do not conform to good hygienic practice.

### 5.1.3 Chemicals

All chemicals including dyes used in manufacture of paper hand towel sheets shall not cause irritation of the skin.

### 5.1.4 Paper

5.1.4.1 The paper shall be free from deleterious defects (e.g. fibre bundles, wood splinters) and from defects that may impair its serviceability.

5.1.4.2 The paper shall be white or colored and shall comply with the requirements given in tables 1, 2 and 3.

### 5.1.5 Construction of sheet

The sides of each sheet shall be neatly cut.

## 5.2 Specific requirements

### 5.2.1 Physical and chemical requirements

When tested in accordance with the methods given, the paper hand towel sheets shall comply with the requirements as given in Table 1.

**Table 1 — Physical and chemical requirements for paper hand towel sheets**

S/N	Property		Requirement	Test method	
i)	Grammage, g/m <sup>2</sup> , Min.	Per ply for 2 ply product	Virgin tissue	19	ISO 12625-6
			Blended tissue	19	
			Recycled tissue	19	
		Per ply for 1 ply product	Virgin tissue	38	
			Blended tissue	38	
			Recycled tissue	38	
ii)	Dry tensile strength, N/m of width, Min.	MD	600	ISO 12625-4	
		CD	350		
iii)	Wet tensile strength, N/m of width, Min.	MD	33	ISO 12625-5	
iv)	Water absorptiveness, g/m <sup>2</sup> , Min.		20	ISO 12625-8	
v)	pH value		4.4 – 8.5	ISO 6588-1	
vi)	Moisture content, %.		4.0 – 7.0	ISO 287	
vii)	Brightness of white paper, %, Min.		73	ISO 12625-7	

### 5.2.2 Dimensional requirements

The paper hand towel sheets dimensional requirements shall be as given in Table 2 when determined in accordance with ISO 11093-4



**Table 2 — Dimensional requirements for paper hand towel sheets**

S/N	Characteristics	Requirement	Tolerance on declared number
i)	Sheet size, mm, Min.	195 x 195	± 3
ii)	Number of sheets per pack, Min.	100	± 2

### 5.2.3 Microbiological limits

Paper hand towel sheets shall comply with microbiological limits specified in Table 3 when tested in accordance with the test method specified therein.

**Table 3 — Microbiological limits for paper hand towel sheets**

S/N	Characteristic	Limit	Test method
i)	Total plate count, cfu/g, max.	300	ISO 8784-1
ii)	<i>Pseudomonas aeruginosa</i> , cfu/g	Not detected 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		

### 5.2.4 Freedom from holes

The average number of holes in the sheets of a pack shall not exceed 5 per hundred sheets.

## 6 Packaging and labelling

### 6.1 Wrapping

A pack of paper hand towel sheets shall be fully wrapped

### 6.2 Packaging

**6.2.1** Sheets shall be packed in suitable material that does not negatively affect the quality of the hand towel sheets during handling, transportation and storage.

**6.2.2** Paper hand towel sheets of the same size, length and color shall be packed together.

### 6.3 Labelling

#### 6.3.1 Labelling on the unit package

Each package shall be legibly and indelibly marked in either English, Kiswahili or French or combination with the following information:

- name and physical address of the manufacturer/importer/distributor and/or trade mark
- name of the product shall appear as "paper hand towel sheets" or "multi-fold paper hand towels";

- c) colour(s) of the paper hand towel sheets;
- d) description of fibre composition shall appear as “virgin”, “blended” or “recycled”;
- e) indicate number of ply;
- f) length of the sheet;
- g) number of sheets of each pack; and
- h) country of origin/manufacture.

### **6.3.2 Labelling on the bulk package**

Each package shall be legibly and indelibly marked in either English, Kiswahili or French or combination with the following information:

- a) name and address of the manufacturer and/or trade mark;
- b) name of the product " Paper hand towel sheets" or "multi-fold paper hand towels";
- c) number of unit packages;
- d) batch number/identification code;
- e) gross weight
- f) colour of the paper hand towel sheets;
- g) the words " ,virgin, blended or recycled fibre";
- h) country of origin or manufacture .

## **7 Sampling**

Sampling shall be done in accordance with ISO 186

## Bibliography

KS 2669:2017, *Paper hand towel sheets (folded hand towels) — Specification*

Public Review Draft

Public Review Draft