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DRAFT

Cotton bed sheets — Specification

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Foreword

This Ethiopian Standard has been prepared under the direction of Technical Committee for Textile-Fabrics (TC 70) and published by the Ethiopian Standards Agency (ESA).

In preparing this Ethiopian Standard reference has been made to the following:

EAS 228: 2001 Cotton bed sheets — Specification published by East Africa Standard(EAS)

Acknowledgement is made for the use of information from the above publication.

DRAFT STANDARD

Cotton bed sheets — Specification

1. Scope

This Ethiopian standard specifies the requirements for bedsheets made from 100 % cotton bleached fabrics, dyed fabrics, printed fabrics and dyed and printed fabrics.

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.

ES ISO 13934-1, Textiles — Tensile properties of fabrics — Part 1: Determination of maximum force and elongation at maximum force using the strip method

ES ISO 13935-1, textiles — seam tensile properties of fabrics and made-up textile articles textiles — seam tensile properties of fabrics and made-up textile articles part 1: determination of maximum force to seam ruptures using the strip method

ES ISO 13935-2, Textiles — Tensile properties of fabrics — Part 2: Determination of maximum force using the grab method

ES ISO 3801, Textiles — Woven fabrics — Determination of mass per unit length and mass per unit area

ES ISO 3758, Textiles — Care labeling code using symbols

ES ISO 22198, Textiles — Fabrics — Determination of width and length

ES ISO 105-E04, Method for determination of colour fastness of textile materials to perspiration

ES ISO 105-X12, Method for determination of colour fastness of textile materials to rubbing

ES ISO 105-B06, Method for determination of colour fastness of textile materials to artificial light (Xenon arc)

ES ISO 3071, Method for determination for pH value of aqueous extracts of textile materials

ES ISO 105-N02, Method for determination of colour fastness of textile materials to peroxide washing (sodium perborate)

ES ISO 6330 Textiles — Domestic Washing and Drying Procedures for Textile Testing

ES ISO 12945-1 Textiles — Determination of Fabric Propensity to Surface fuzzing and to pilling — Part: 1 Pilling Box Method

ES 6583 Code of Practice for Grading of Textile Fabrics

ES 6702 Guideline for Sustainable Textile Production

3. Terms and Definitions

For the purpose of this Ethiopian standard the definitions in ES ISO 6938 shall apply.

4. Requirements

4.1. Fabric

4.1.1. Fabric fibre composition

The fabric shall be 100 % cotton.

4.1.2. Properties

The fabric properties shall be as specified in Table 1.

4.1.3. Selvedges

The fabric selvedges when visually examined shall be straight and firm.

4.1.4. Fabric Grade

The fabric used for the manufacture of bed sheets shall be of grade in accordance with ES 6583

4.1.5. Colorfastness

The colorfastness of the colored fabrics shall be as specified in Table 2.

Table 1 Fabric properties

Property	Requirement	Test Method
Mass per unit area, g/m ² , min.	130	ES ISO 3801
Breaking force, N, min.:		ES ISO 13934-1
Warp way	490	
Weft Way	490	
Dimensional changes after washing, percent, max.:		ES ISO 6330
Length	±4	
Width	±4	
Ph	6.0-8.0	ES ISO 3071
Scouring loss (only for bed sheets finished as bleached white), percent, max.	5	-----
Pilling resistance, minimum	3	ES ISO 12945-1

Table 2 Colorfastness requirements

Agency	Numerical rating, min		Test method
	Color change	Staining	
Light	5		ES ISO 105-B-07
Washing - ordinary (scrubbing) bleaching	4	4	ES ISO105-C07
Washing - peroxide bleaching	3	3	ES ISO105-N02
Washing - chlorine bleaching	3	3	ES ISO 105-N03
Perspiration, acid and alkali	4	4	ES ISO 105-E04
Dry cleaning	4	4	ES ISO3175-1
Rubbing: Dry	4	4	ES ISO105-X12 and ES ISO105-X16
Wet			

4.2. Make-up

4.2.1. Finished dimensions (Sizes)

The minimum dimensions (sizes) of the finished bedsheet shall be as specified in Table 3.

Table 3 Dimensions of finished bed sheets

Width in cm	Length in cm
235	285
235	265
190	240
160	240
140	240
140	215
130	195

4.2.2. Sewing thread

The sewing thread shall be 100 % polyester. The thread shall be of the same colour as the bed sheet and in the case of colored bed sheet, of the same colorfastness — see Table 2.

4.2.3. End hems

A bedsheet shall have a minimum of top side 3 cm and bottom side 2 cm end-hems. A minimum of 0.5 cm of the raw edges shall be turned in.

4.2.4. Joined bed sheets

A bedsheet of width more than 155 cm may be joined on one side or both sides. No bedsheet shall have more than two seams within the body. The seams shall be neatly turned in so that no raw edges are exposed and stitched with a stay seam. The ends of all stitching threads shall be trimmed and loose ends removed.

4.2.5. Sewing

The sewing shall be of even tension throughout and the ends shall be finished securely and neatly. The number of stitches per cm shall not be less than 4.5.

5. Packing

5.1. Pieces

Each piece or pair of bedsheet(s) shall be neatly and securely wrapped in polyethylene wrappers to prevent contamination or damage.

5.2. Bulk

The neatly and securely wrapped pieces shall be packed in cartons or boxes. A bulk container shall consist of only same size and others by agreement between seller and buyer.

6. Marking

6.1. Pieces

Each piece or pair of bedsheet(s) shall have a label securely attached bearing the following information

- a) Manufacturer's name or registered trade mark;
- b) 100 per cent cotton bed sheet (s);
- c) Size of the bedsheet(s) in cm;
- d) Care instructions in accordance with ES ISO 3758; and

6.2. Bulk containers

Each bulk container shall have a label securely attached, bearing the following information:

- a) Manufacturer's name or registered trade mark.
- b) 100 per cent cotton bedsheets.
- c) Size of the bedsheets in cm.
- d) Quantity of pieces.
- e) Country of origin (optional).
- f) Jointed bedsheets, if joined (see Clause 4.2.4)

DRAFT STANDARD

Organization and Objectives

The Ethiopian Standards Agency (ESA) is the national standards body of Ethiopia established in 2010 based on regulation No. 193/2010. ESA is established due to the restructuring of Quality and Standards Authority of Ethiopia (QSAE) which was established in 1998.

ESA's objectives are:-

- ❖ Develop Ethiopian standards and establish a system that enable to check whether goods and services are in compliance with the required standards,
- ❖ Facilitat the country's technology transfer through the use of standards,
- ❖ Develop national standards for local products and services so as to make them competitive in the international market.

Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes. Orders for all Ethiopian Standards, International Standard and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed in from our website.

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