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## DRAFT EAST AFRICAN STANDARD

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### Woven bags from natural fibres — Specification — Part 3: Woven bags for sugar

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 061, *Textiles, textile products and accessories*.

This second edition cancels and replaces the second edition (EAS 156-3: 2000), which has been technically revised.

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.

With regard to the first edition (EAS 156-3: 2000), the following changes have been made in this second edition:

- The requirements of stitching thread and seams were deleted given that Table 1 had a requirement for breaking strength of the seam;
- The requirement of having each manufacturer using registered colours different from other manufacturers was deleted;
- To cater for other bag sizes, the dimensions of bags is now based on the manufacturer's declaration;
- The parameter for "Mass per bag" was deleted to cater for the different bag sizes on the market;
- The breaking strength requirements for the bag and the seam have been corrected;
- A requirement for requirement for vertical impact by dropping has been introduced;
- Most of the test methods have been replaced with relevant ISO standards; and
- A new clause on sampling in accordance with ISO 2859-1 has been incorporated.



DRAFT EAST AFRICAN STANDARD ON PUBLIC REVIEW

# Woven bags from natural fibres — Specification — Part 3: Woven bags for sugar

## 1 Scope

This Draft East African Standard specifies requirements, test methods and sampling of woven bags for sugar, made from natural fibres.

## 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.

EAS 246, *Determination of added oil content of sisal or jute yarn or fabric*

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

ISO 2248, *Packaging — Complete, filled transport packages — Vertical impact test by dropping*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

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

ISO 4593, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning*

ISO 7211-2, *Textiles — Methods for analysis of woven fabrics construction — Part 2: Determination of number of threads per unit length*

ISO 13934-2, *Textiles — Tensile properties of fabrics — Part 2: Determination of maximum force using the grab method*

ISO 13935-1, *Textiles — Seam tensile properties of fabrics and made-up textile articles — Part 1: Determination of maximum force to seam rupture using the strip method*

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

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

**3.1**

**bale**

rectangular pressed rigid package containing woven bags made from natural fibres and covered with protective wrappings that are stitched and/or securely bound

**3.2**

**ends per unit length**

number of warp yarns per unit length of fabric

**3.3**

**liner-bag**

rectangular plastic bag, usually made from polyethylene tubing

**3.4**

**lot**

all bales of natural fibre bags purporting to be of specified, dimensions and quality, containing one definite number of bags, delivered to one purchaser against one despatch note

**3.5**

**moisture-regain (bag)**

mass of moisture in a bag expressed as a percentage of the over-dry mass of the bag, under standard atmosphere

**3.6**

**natural fibre**

fibre which occurs in nature such as jute, kenaf, rattan and sisal

**3.7**

**picks per unit length**

number of weft yarns per unit length of fabric

**3.8**

**sacking**

range of plain woven cloths made from natural fibres

**4 General requirements**

**4.1 General requirements**

**4.1.1 Hemming at the mouth**

The raw edges of the bag cloth at the mouth of each bag shall be first turned over first to a depth of 1.8 cm and then to a depth of 2.0 cm and the three layers of sacking thus formed, shall be firmly hemmed with stitching thread.

**4.1.2 Freedom from defects**

**4.1.2.1** The bag and its sacking shall be free from manufacturing and tailoring defects including but not limited to:

- a) weaving defects such as holes, cuts, tears, floats, crushed selvages, spots and stains; and
- b) sewing defects such as gap-stitches, loose ends and frayed ends

**4.1.2.2** The bag and its sacking shall also be free from any other defect which may significantly mar their appearance or affect their performance

### 4.1.3 Liner bag

4.1.3.1 Each bag shall be supplied with an inner loosely fitting liner-bag

4.1.3.2 The liner-bag shall be non-contaminated, clean and free from pinholes, patches, tears, blisters and any other visible defects.

## 4.2 Specific requirements

### 4.2.1 Physical, constructional and mechanical requirements

The bag and its liner-bag shall comply with the physical, constructional and mechanical requirements given in table 1 when tested in accordance with the test methods specified therein.

**Table 1 – Physical, constructional and mechanical requirements of a bag and its liner-bag**

S/N	Characteristic	Requirements	Test-method
i	Breaking strength of all seams, N, min.	700	ISO 13935-1
ii	Ends per 10 cm, min.	30	ISO 7211-2
iii	Picks per 10 cm, min.	48	ISO 7211-2
iv	Breaking strength of bag cloth, N, min. (i) Warp-way (ii) Weft-way	1 700 2 000	ISO 13934 - 2
v	Moisture regain, %, max.	15	Annex A
vi	Oil content on dry de-oiled material, %, max.	5	EAC 246
vii	Thickness of liner-bag tubing, $\mu\text{m}$ , min.	60	ISO 4593

### 4.2.2 Dimensions

4.2.2.1 The bags and sackings shall comply with the dimensions declared on the label when tested in accordance with ISO 22198, subject to a tolerance of  $\pm 10$  cm.

4.2.2.2 The dimensions of the bag shall be such the bag cannot carry more than 100 kg of the intended load.

### 4.2.3 Resistance to vertical impact by dropping

When a complete-filled woven bag for cereals/pulses is dropped from a height of 3 metres and lands on either of the faces, or either of the ends or either of the sides, it shall not burst. This shall be tested in accordance with ISO 2248.

## 5 Packaging

Bags shall be packaged in suitable materials to prevent them from getting damaged during transportation, handling and storage.

## 6 Labelling

6.1 Each bag shall be legibly and indelibly labelled with the following information:

- a) name of the product (such as sisal bag);
- b) fibre composition;
- c) manufacturer's name and physical address;
- d) registered trade mark (if any);
- e) capacity of the bag in kg;
- f) description of goods to be packed;
- g) dimensions of the bag and liner bag;
- h) lot/batch number; and
- i) country of origin on marking

**6.2** Each bale of bags shall be legibly and indelibly labelled with the information given in 6.1 and number of bags in a bulk package and gross mass of the bale.

## **7 Sampling**

Sampling shall be done in accordance with ISO 2859-1.

## Annex A (normative)

### Determination of moisture regain

**A.1** Condition the samples in accordance with ISO 139.

**A.2** Carry out the following procedure to determine the moisture regain.

Cut out two strips, each measuring about 25 cm x 25 cm from the sacking of each bag and determine the average moisture regain in accordance with ISO 3801, using the formula:

$$R = 100 \frac{(M - m)}{m} \%$$

Where

R is the percentage moisture regain;

M is the original mass of the strip; and

R is the oven-dry mass of the strip

## Bibliography

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