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ICS 65.150

EAST AFRICAN STANDARD

Fishing nets — Specification



EAST AFRICAN COMMUNITY

Foreword

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

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. 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 procedures of the Community.

Article 15(1) of the EAC SQMT Act, 2006 provides that "Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose".

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.

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Introduction

In the preparation of this East African Standard, the following sources were consulted extensively:

KS 08-1076:1998, *Specification for fishing nets*

IS 4303-1:1975, *Code of hygienic conditions for fish industry — Part 1: Pre-processing stage*

IS 4303-2:1975, *Code of hygienic conditions for fish industry — Part 2: Canning stage*

Codex Alimentarius website: http://www.codexalimentarius.net/mrls/vetdrugs/jsp/vetd_q-e.jsp

USDA Foreign Agricultural Service website: <http://www.mrlidatabase.com>

USDA Agricultural Marketing Service website: <http://www.ams.usda.gov/AMSv1.0/Standards>

European Union: http://ec.europa.eu/enterprise/sectors/pharmaceuticals/veterinary-use/maximum-residue-limits/index_en.htm

Assistance derived from these sources is hereby acknowledged.

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Fishing nets — Specification

1 Scope

This East African Standard specifies the requirements for fishing nets.

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.

CD-K-583:2010, *Fishing nets — Designation of netting yarns in the Tex System*

CD-K-584:2010, *Fishing nets — Netting — Basic terms and definitions*

CD-K-589:2010, *Fishing nets — Determination of breaking force and knot breaking force of netting yarns*

CD-K-590:2010, *Fishing nets — Determination of mesh breaking force of netting*

CD-K-592:2010, *Fishing nets — Determination of elongation of netting yarns*

CD-K-593-1:2010, *Fishing nets — Method of test for the determination of mesh size — Part 1: Opening of mesh*

CD-K-593-2:2010, *Fishing nets — Method of test for the determination of mesh size — Part 2: Length of mesh*

CD-K-594:2010, *Fishing nets — Determination of change in length of netting yarns after water immersion*

ISO 1973, *Textile fibres — Determination of linear density — Gravimetric method and vibroscope method*

ISO 5079, *Textile fibres — Determination of breaking force and elongation at break of individual fibres*

3 Definitions

For the purpose of this standard the following definition shall apply:

3.1

half mesh

distance from the centre of one knot to the centre of the next knot in the square mesh

3.2

full mesh

distance from the centre of one knot to the next in the stretched mesh state

4 Requirements

4.1 Twines

The twines used in the manufacture of fishing nets shall be made of synthetic fibres.

4.2 Dimensional stability of mesh

The twine used in the manufacture of fishing nets shall not shrink or stretch by more than 3 per cent after immersion in (sea) water for 24 hours at room temperature. This shall be determined in accordance with CD-K-594:2010.

4.3 Mesh size

The mesh size shall be as declared subject to a tolerance of ± 1 mm. This shall be determined in accordance with Annex A. The smallest mesh size shall be at least 10 mm.

4.4 Linear density

The linear density of the twine shall be as declared subject to a tolerance of 5 per cent. This shall be determined in accordance with ISO 1973.

4.5 Breaking strength of twine

The average breaking load of twine shall be as specified in Table 1. This shall be determined in accordance with Annex C. Each individual test value shall be at least 90 per cent of the minimum breaking strength given in Table 1.

4.6 Elongation at break

The average elongation at break of the twine shall be as specified in Table 1. This shall be determined in accordance with ISO 5079. No individual test value shall be more than 10 per cent of the maximum given in Table 1.

4.7 Mesh breaking load

The average mesh breaking load of the net shall be as given in Table 2. This shall be determined in accordance with CD-K-590:2010. No individual test value shall be less than 90 per cent of the minimum value as specified in Table 2.

5 Packaging

Fishing nets shall be packed in such a manner as to prevent soiling and damage.

Table 1 — Breaking load of twine and elongation at breaking load

Twine construction	Minimum breaking load (newtons), wet (See Note 1)	Maximum elongation at break, percentage, wet, (See Note 1)
Nylon multifilament twine		
tex/plies		
23/2	25	30
23/6	75	35
23/9	100	40
23/21	240	40
Polyethylene		
42/6	115.0	40
42/0	155.0	45
42/12	196.0	50
42/24	325	55
Method of test	ISO 5079	ISO 5079

NOTE 1 "Wet" shall mean that the test specimen has been immersed in sea water without wetting agents at 25 ± 2 °C for at least 12 hours surplus water shall be shaken off.

NOTE 2 1 kgf = 9.80 Newtons.

Table 2 — Mesh breaking load

Net construction	Minimum mesh breaking load, newtons, wet (See Note 1)
Nylon multifilament nets	
Tex x mesh size (mm)	
23/2 x 45	30
23/6 x 65	80
23/6 x 121	90
23/6 x 127	110
23/9 x 7	110
23/21 x 102	290
Polyethylene nets tex/plies x size (mm)	
42/6 x 32	90
42/6 x 45	100
42/9 x 45	140
42/12 x 45	120
42/24 x 152	350
Method of test	CD-K-590:2010

6 Labelling

The following information shall be printed on a sheet of paper accompanying a package of fishing net.

- (i) Manufacturer's name or registered trade mark.
- (ii) The twine designation (see CD-K-583:2010).
- (iii) Fibre content of the net twine.
- (iv) Nominal mesh size.
- (v) Length and depth of the net.
- (vi) Colour of netting.
- (vii) Date of manufacture.
- (viii) The inscription 'Made in Kenya' or name of country of origin for imported net.

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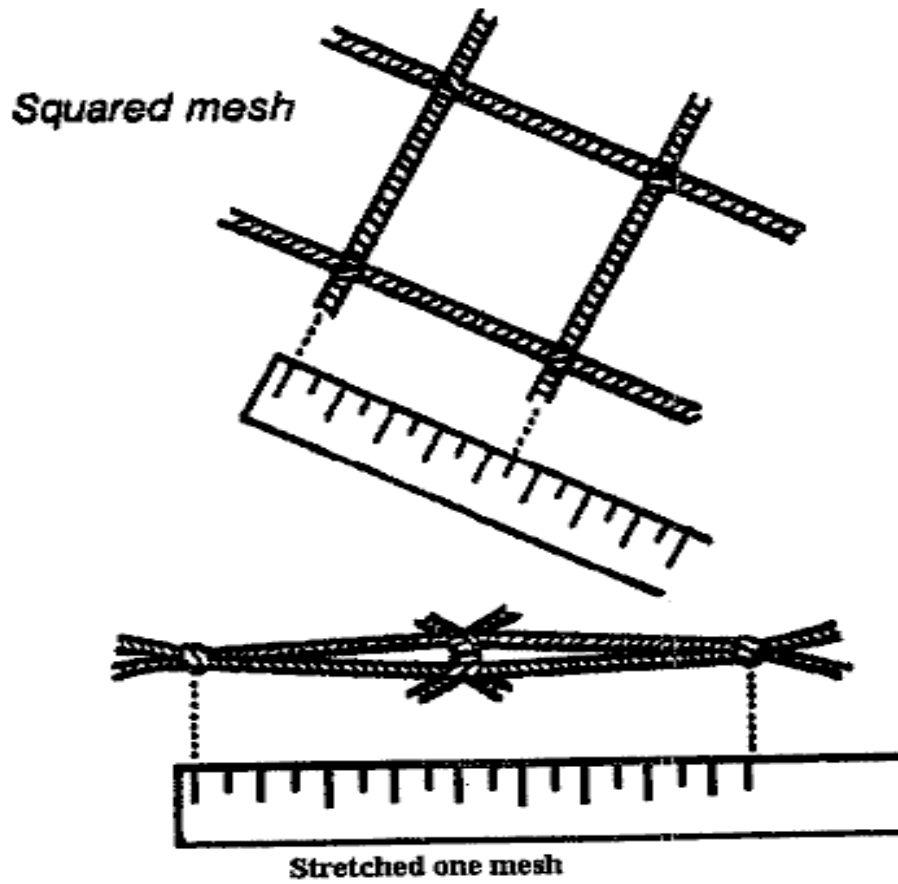


Figure 1 — Measurement of mesh size

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4" tropical

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Annex A
(normative)

Measurement of mesh size

A.1 Principle

The distance from knot to knot in a square mesh configuration or stretched mesh configuration shall be taken to give the size of half mesh or full mesh respectively.

A.2 Apparatus

One of the following measuring devices shall be used to measure mesh size.

- (i) Allen net rule.
- (ii) Hovey gauge.
- (iii) Selkirk gauge.
- (iv) Flexible rule.
- (v) Straight rule.

A.3 Preparation

Immerse the fishing net sample in 'sea' water without wetting agents at $25 \pm 2^\circ\text{C}$ for at least 12 hours. Shake off surplus water.

A.4 Procedure (see Figure 1)

A.4.1 Take the distance in millimetres, from the centre of one knot to the next in the square mesh condition. Repeat the measurement for 11 other meshes selected at random.

A.4.2 Measure the distance in millimetres from the centre of one knot to the next in the stretched mesh state using just sufficient force to remove kinks. Repeat the measurement for 11 other meshes selected at random.

A.5 Calculation and expression of results

A.5.1 Full mesh size is the average of the measurements in A.4.2.

A.5.2 Half mesh size is the average of measurements taken in A.4.1. Full mesh size = Half mesh size times 2.

Annex B
(normative)

Determination of linear density of twines

B.1 Principle

Certain length of twine shall be weighed in milligrams and its length in centimetres determined. Its linear density shall be calculated from the two measurements.

B.2 Apparatus

B.2.1 A weighing balance capable of measuring in milligrams.

B.2.2 Apparatus in A.2 above.

B.3 Preparation

Unravel 10 pieces of twine from the netting each measuring at least 15 centimetres. Apply just sufficient force to remove kinks in the twine pieces.

B.4 Procedure

B.4.1 Measure the length of each piece in centimetres to the nearest millimetre.

B.4.2 Measure the mass of each twine piece to the nearest milligram.

B.5 Calculation and expression of results

B.5.1 Linear density of each twine piece in tex shall be calculated from the following formula:

$$\text{Tex} = 100 \frac{m}{l}$$

where,

l = Length of the piece in cm and

m = mass of piece in milligrams.

B.5.2 Linear density of the netting twine = the average tex of the ten pieces.

Annex C
(normative)

Determination of breaking strength of twine

C.1 Principle

A piece of twine is subjected to tensile loading until it breaks. The load at which it breaks shall be noted and recorded as breaking strength.

C.2 Preparation

Retrieve the twine pieces used in Annex B for this test.

C.3 Procedure

Determine the breaking strength of each piece using ISO 5079 but using gauge length of 10 cm.

C.4 Calculation and expression of results

C.4.1 Take the average breaking strength of the 10 twine pieces.

C.4.2 The breaking strength of the netting twine shall be the average in C.4.1.

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