DRAFT EAST AFRICAN STANDARD

Fishing gill nets — 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 061, Textile, Textile products and Accessories

Fishing gill nets — Specification

1 Scope

This Draft East African Standard specifies the requirements and methods of test for fishing gill nets.

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 1805, *Fishing nets — Determination of breaking force and knot breaking force of netting yarns*

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*

ISO 16373-1, *Textiles — Dyestuffs — Part 1: General principles of testing coloured textiles for dyestuff identification*

ISO 16373-2, *Textiles — Dyestuffs — Part 2: General method for the determination of extractable dyestuffs including allergenic and carcinogenic dyestuffs (method using pyridine-water)*

ISO 16373-3, *Textiles — Dyestuffs — Part 3: Method for determination of certain carcinogenic dyestuffs (method using triethylamine/methanol)*

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

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 diagonally stretched mesh state

3.3
knot
point of connecting, overlapping of crossing of the net

3.4
twine
product of one twisting operation embracing two or more single yarns

3.5
mesh size
size of spacing between the individual strands of a fishing net or other mesh

3.6
competent authority
ministry in charge of fisheries

4 Requirements

4.1 Twines

The twines used in the manufacture of fishing nets shall be made of synthetic multifilament 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 % after immersion in saline water for 24 h at room temperature.

4.3 Mesh size

Mesh size for fishing nets shall comply with the requirements of the relevant legislation in Partner States.

The mesh size shall be determined in accordance with Annex A.

4.4 Length and depth

The length of the net when stretched shall be 90 m (100 yards) subject to a tolerance of 2 % variation and the shall be determined by the competent authority

4.5 Linear density

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

4.6 Breaking strength of twine

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

4.7 Elongation at break

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

Table 1 — Breaking load of twine and elongation at break

Twine construction	Breaking load, wet[*], min N	Elongation at break, wet[*], max. %	Test method

Nylon multifilament twine tex/plies:			
• 23/2	25	30	ISO 5079
• 23/6	75	35	
• 23/9	100	40	
• 23/21	240	40	
Polyethylene:			
• 42/6	115.0	40	ISO 5079
• 42/9	155.0	45	
• 42/12	196.0	50	
• 42/24	325	55	
* "Wet" shall mean that the test specimen has been immersed in seawater without wetting agents at 25 °C ± 2 °C for at least 12 h surplus water shall be shaken off.			
NOTE 1 kgf = 9.80 N			

4.8 Mesh breaking load

The average mesh breaking load of the net shall be as given in Table 2 when determined in accordance with ISO 1805.

Table 2 — Mesh breaking load

Net construction	Mesh breaking load, wet*, min. N	Test method
Nylon multifilament nets [Tex x mesh size (mm)]		
• 23/2 x 45	30	ISO 1805
• 23/6 x 65	80	
• 23/6 x 121	90	
• 23/6 x 127	110	
• 23/9 x 76	110	
• 23/21 x 102	290	
Polyethylene nets [Tex/plies x size (mm)]		
• 42/6 x 32	90	ISO 1805
• 42/6 x 45	100	
• 42/9 x 45	140	
• 42/12 x 45	120	
• 42/24 x 152	350	
* "Wet" shall mean that the test specimen has been immersed in seawater without wetting agents at 25 °C ± 2 °C for at least 12 h surplus water shall be shaken off.		

5   Restricted Colorants

The dyed fishing nets shall be free from listed amines and carcinogenic dyestuffs specified in ISO 16373, 2 & 3. Dyestuff classes are identified in accordance with ISO 16373-1

6.   Packaging

Fishing nets shall be packed in suitable packages so as to prevent soiling and damage.

7   Labelling

The following information shall be legibly and indelibly marked on the fishing gill nets:

a)   name of the product shall be "Fishing gill nets";

b)   manufacturers name or registered trade mark;

c)   twine specification;

d)   fibre content of the net twine;

e)   nominal mesh size;

f)   length of the net

g)   depth of the net;

h)   colour of the net;

i)   date of manufacture;

j)   instructions for care and disposal of nets as per country regulation; and

k)   country of manufacture

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:

a) allen net rule;

b) hovey gauge;

c) selkirk gauge;

d) flexible rule; or

e) straight rule.

A.3 Preparation

Immerse the fishing net sample in seawater without wetting agents at 25 °C ± 2 °C for at least 12 h. Shake off surplus water.

A.4 Procedure

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.

NOTE   See Figure A.1.

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.
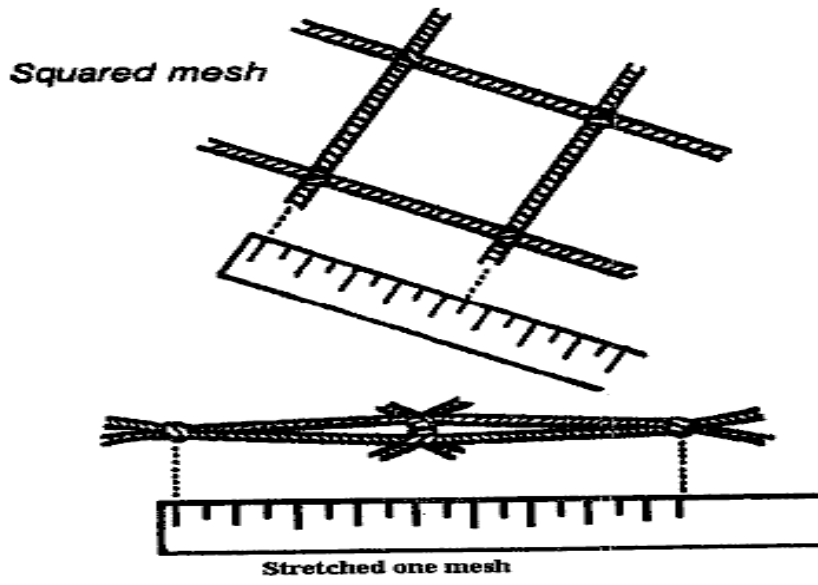
NOTE   See Figure A.1.

Figure A.1 — Mesh size

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 **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 cm. 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:

$$\text{Tex} = 100\, m/l$$

where

l is the length, in centimetres, of the piece; and

m is the mass, in milligrams, of the piece.

B.5.2 Linear density of the netting twine = the average tex of the 10 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.