DEAS 966: 2019

ICS 71.100.01

DRAFT EAST AFRICAN STANDARD

Hair extensions — Specification

EAST AFRICAN COMMUNITY

1st Edition 2019

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. XXXXXX.

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 071, *Cosmetics and related 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.

Introduction

Hair extensions are human or artificial hair utilized for the integration with one's natural hair. Hair extensions can alter one's appearance for long or short periods of time by adding further hair to one's natural hair or by covering the natural hair all together with human or synthetic hairpieces. Weaving additional human or synthetic pieces can enhance one's hair by giving it volume, length and adding color without the damage of chemicals or adopting a different hair texture than that of their own.

Hair extensions — Specification

1 Scope

This Draft East African Standard specifies the requirements and methods of test for hair extensions for use on humans.

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 22716, *Cosmetics — Good Manufacturing Practices (GMP) — Guidelines on Good Manufacturing Practices*

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
wigs
artificial covering of synthetic hair worn on the head for personal adornment as, part of a costume, or to conceal baldness. Wigs are hair strands with tips stitched together and encapsulated with a confortable backing fabric, elastic in nature, and which is not visible from outside. It is meant to be worn over whole or part of the scalp. The wig weaving is done using lace caps.

3.2
weave
hair strands with tips stitched together in a linear manner. They usually vary in length, size and style and are meant to enhance or cover the natural hair or cover baldness

3.3
braids and hair pieces
hair strands, usually loose in nature, used as attachments in order to elongate the hair. They may be wavy, curly, or straight and can either be used with hot water or cold (room temperature) water to style them.

NOTE — A braid (also called plait) is a complex structure or pattern formed by intertwining three or more strands of flexible human hair.

4 Classification

Hair extensions shall be classified into three broad categories:

a) wigs;

b) weaves; and

c) braids and hair pieces.

5 Requirements

5.1 Fibre burn test (Differentiation test)

5.1 1 Human hair

When tested in accordance with annex A, it shall burn briefly with an orange flame and then chars leaving a dark ash that turns to powder when crushed. The odour shall be of burning flesh or burning feathers.

5.1.2 Synthetic fibres.

Synthetic fibre are either nylon or polyester and each burns quite differently.

5.1.2.1 Nylon fibres

It shall burn briefly but rapidly and then melts. It shall have a sparkling flame that has a blue base and orange tip. The ash shall be like hard amber beads. The odour smells like boiling green vegetables or burning celery.

5.12.2 Polyester fibres

It shall burn and melt quite rapidly at the same time. It has an orange sputtery flame with black smoke and gives off a sweetish odour. The ash drips and is sticky to the touch before forming into hard black beads. Remember to burn test each fibre separately as your piece may contain a blend of both human hair and synthetic.

5.1.3 The product shall be produced, prepared and handled in accordance with ISO 22716.

5.2 Other Requirements

Hair extensions shall comply with the requirements specified in Table 1 when tested in accordance with the methods specified therein.

Table 1 — Requirements for hair extensions

Characteristic	Requirement	Test method
Shine test	Free and straw like-showing that resembles natural hair	–
Freedom from unwanted matter	Free from any foreign matter or fibre or lice or fleece and moulds	Visual/microscopic
Texture	Either standard (slight wave, body wave) or curly (tight wave, loose curl)	Visual
Stitching for weaves and wigs, min.	Lock stitch of seven stitches per centimetre	–
Number of stitches per cm, min	3	Annex B
Mass, g, min.	Weave strand: 135 Wigs: 80 Braids: 45	Annex C
Strand diameter, mm	1 ± 0.200	Annex D
Linear density (in tex. g/1 000 m), min.	4.00	Annex E

6 Packaging

6.1 The hair extensions bundle shall be packed in suitable materials/bags that will prevent damaging of the contents during normal handling, transportation and storage.

6.2 The retail package shall be such that it allows the buyer/consumer to clearly see the contents either wholly or partly.

7 Labelling

The following information shall be legibly and indelibly marked on each bundle package:

a) name and address of the manufacturer;

b) registered trade mark, if any;

c) type of hair extension;

d) batch number or code;

e) country of origin or manufacture;

f) colour;

g) pictorial of the contents;

h) precaution: where applicable the word “Heat sensitive” or “For hot water use” and

i) the words, " Synthetic hair extensions" or “Human Hair”.

Annex A
(normative)

Differentiation or fibre burn test

A.1 Introduction

Most obvious way to determine if hair is real or fake is to conduct a microscopic test to find out the chemical composition of the extension hair. However, since most of us do not have a microscope readily available or have a degree in forensic science this is probably not a suitable option.

A.2 How to test if hair is human or synthetic

The textile industry conducts what is called a “fibre burn” test to identify the content. The same test can be done on hair.

1. Remove single strands of hair from different areas of the questionable unit.
2. Hold a single strand with tweezers and use a lighter to keep a steady flame.

NOTE Do not use matches as they will mask the odour.

3. Pay attention to the odour, ember and flame.

A.3 Results

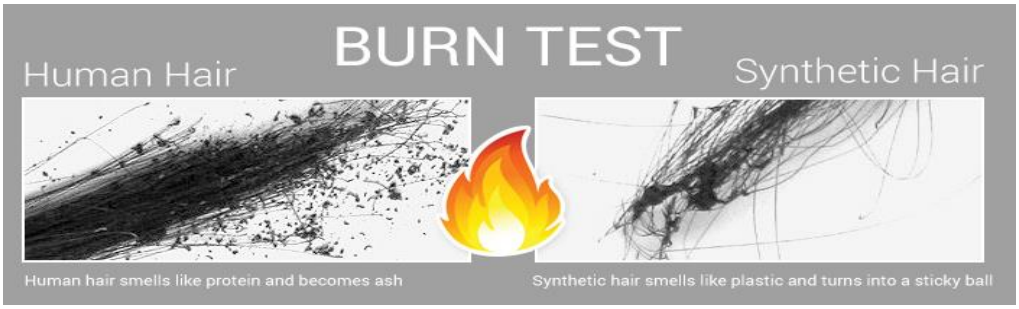
A.3.1 **Human hair** is a protein fibre that burns with a small flickering flame and will not continue to burn unless you hold the flame continuously to the strand. It burns briefly with an orange flame and then chars leaving a dark ash that turns to powder when crushed. The odour is of burning flesh or burning feathers.

Synthetic fibres are either nylon or polyester and each burns quite differently.

A.3.2 **Nylon fibres** burn briefly but rapidly and then melts. It has a sparkling flame that has a blue base and orange tip. The ash is like hard amber beads. The odour smells like boiling green vegetables or burning celery.

A.3.3 **Polyester fibres** burn and melt quite rapidly at the same time. It has an orange sputtery flame with black smoke and gives off a sweetish odour. The ash drips and is sticky to the touch before forming into hard black beads. Remember to burn test each fibre separately as your piece may contain a blend of both human hair and synthetic.

A.4 Report



If the hair burns with a white smoke and turns to ash, it indicates it is human hair and no synthetic fibres have been added to the bundle. If the hair burns with a black smoke and turns into a sticky texture, it indicates that synthetic fibres have been added to the hair bundle.

Annex B
(Normative)

Stitch width test

B.1 General

This test is intended to ensure that strands of hair do not come out during the normal combing exercise. This is usually determined by the manner in which stitching is done.
It measures the total width per given length.

B.2 Apparatus

Metre rule

B.3 Procedure

Lay the weave on a flat surface and measure the width of the stitch. Count the stitches in 1 cm length. Repeat five times and obtain an average.

B.4 Reporting

Express the result to the nearest whole number.

Annex C
(Normative)

Mass

C.1 Apparatus

Electronic weighing balance, with accuracy of upto 0.001

C.2 Procedure

Place the strands of hair shall be on an electronic weighing balance which has been calibrated and weighed.

Take up to five readings and calculate the average.

C.3 Results

Express the result in grams.

Annex D
(normative)

Strand diameter

D.1 General

The objective of this test is to ensure that the hair extensions are not having diameters too large than those of the natural African hair.

D.2 Apparatus

Projection microscope (CH-9435)

D.3 Procedure

Take a strand of hair and place it under the projection microscope and proceed to take the readings in accordance with the manufacturer's manual. Repeat the procedure for at least five strands and calculate the average.

D.4 Results

Express the result obtained in the folioing manner:

Strand diameter = x mm

Annex E
(normative)

Linear density test

E.1 Instruments

E.1.1 **Weighing balance** with an appropriate capacity and a sensitivity equal to 1 part in 1 000 of mass or the specimen to be weighed

E.1.2 **Metre rule**

E.2 Procedure

E.2.1 Remove a strand from the bundle of hair and lay it flat on a flat surface.

E.2.2 Measure the length using a metre rule.

E.2.3 Weigh the strand and record the mass in grams.

E.3 Calculation

Calculate the linear density as follows:

Linear density = 1 000.m/L

where,

m is the mass, in grams, of the strand; and

L is the length in metres.

Bibliography

[1] KS 2173:2018, *Hair extension — Specification*

[2] US 1532:2013, *Synthetic hair extensions — Specification*