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DRAFT EAST AFRICAN STANDARD

Cigar — Specification

EAST AFRICAN COMMUNITY

First Edition 2024

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.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

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.

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 013, *Tobacco and tobacco 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.

1 Scope

This draft East African Standard specifies the requirements, methods of test and sampling for cigars

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.

Codex Stan 193 - General standard for contaminants and toxins in food and feed

ISO 15152 Tobacco and tobacco products-Determination of the content of total alkaloids as nicotine — Continuous-flow analysis method

ISO 2817 Tobacco and tobacco products- Determination of silicated residues insoluble in hydrochloric acid

CORESTA Recommended Method No. 76 Determination of moisture content (oven volatiles) of tobacco and tobacco products

3 Terms and definitions

For the purposes of this standard, the following terms and definitions shall 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 Cigar

any roll of tobacco wrapped in either leaf of tobacco or any substance containing tobacco having finished head which may be closed or tapered and commonly cylindrical in shape.”

3.2 wrapper leaves

cigar's outermost layer which determines much of the cigar's character and flavour, and such colour is often used to describe the cigar as a whole.

3.3 binder tobacco

leaf beneath wrapper which binds together bunch of tobacco leaves. It is typically sun grown from the top part of a tobacco plant and is selected for its elasticity and durability in the rolling process.

3.4 filler tobacco

bound bunch of tobacco leaves or threshed blend filler.

3.5 tobacco additive

means any substance, other than tobacco leaf and other tobacco plant parts, that is intentionally added to a tobacco product during manufacture in accordance with products specifications and is still present and having a function in the finished product. This includes flavors, preservatives, humectants and binders

4 REQUIREMENTS

4.1 General requirements

4.1.1 Cigar shall be made of a filler tobacco or threshed blend filler forming its general core, the binder tobacco binding the filler and folding it into shape.

4.1.2 The outside of cigars shall be wrapped with wrapper leaves.

4.1.3 A typical cigar shall contain filler tobacco, binder and wrapper tobacco. It is the cigar wrapper which imparts to the cigar the fine finish, good burn, agreeable flavour and detectable aroma.

4.1.4 Tobacco used in making cigar shall be uncut with desirable characteristics.

4.1.5 Raw material.
The materials used shall not contain any harmful substances as described in respective partner state Drugs and Prevention of Illicit Traffic Drugs Acts

4.1.6 Length
The length of cigar shall be between 75 and 150mm.

4.1.7 Mass per 1000 cigars
The mass of 1000 cigars shall be between 0.6 and 11.0Kg

4.1.8 Free from tobacco beetle attack
Cigars shall be free from any tobacco beetle attack when examined by the method prescribed in Annex A.

4.1.9 Burning quality
Cigars shall burn evenly. Chemical shall not be used for obtaining better burn of cigars.

4.1.10 Filler tobacco
It shall consist of air cured or sun cured tobacco, sweated or unsweated. The desirable quality characteristics shall be thin to medium and pliable texture, good size, mild strength, good burning with white ash and agreeable flavour. For binder, leaf with thin veins is considered more suitable.

4.1.11 Wrapper tobacco
It shall consist of wrapper tobacco grown under shade or in open air cured under shade. The leaf shall be thin, elastic, free from damage and blemish of parrot green colour, having fine texture and good burning quality.

4.2 Specific requirements

4.2.1 Cigar shall conform to the requirement specified in Table 1;

Table 1: specific requirements for cigars

S/N	CHARACTESTICS	REQUIREMENT	METHOD OF TEST
I	Moisture content, percent by mass	10-16.	Annex C or CORESTA 76
II	Nicotine content, percent by mass, (on dry basis) max	3	ISO 15152
III	Total ash content, percent by mass,(on dry basis) max	25	Annex D
IV	Acid insoluble ash, percent by mass, (on dry basis) max	5	ISO 2817
V	Total chloride content, percent by mass,(on dry basis) max	1.5	Annex E

5 Additives

Additives shall be of a nature and purity which are suitable for use as tobacco and tobacco products additives. The adhesive used, shall be of food grade and shall not contain copper sulphated.

6. CONTAMINANTS

The product shall conform to levels of purity accepted in the food industry. Levels of heavy metals transferred to the smoke shall not exceed those levels accepted in food industry with reference to Codex 193

7. SAMPLING

The method of representing samples of the material and the criteria for conformity shall be done as prescribed in **Annex B.**

8. PACKAGING, MARKING AND LABELLING

8.1 Packaging

Cigars of uniform colour shall be packed in one packet which may be 5,10,25,50 or 100 in numbers in a wooden, tin or cardboard box opening only at the top, or paper wrapped completely closed all sides and with all outer edges gummed down.

8.2 Marking and labelling

Each packet of cigars shall be legibly and indelibly marked with the following

a) Name of the product shall be Cigar.

b) Name of the manufacturer

c) Brand name or trade name if any

d) Number of cigars

e) manufacture date or code date

f) Batch number/lot number

g) tax stamps.

h) Health warning message as prescribed in respective partner state tobacco and tobacco products regulations

i) Declaration on additives used.

ANNEX A: EXAMINATION FOR FREEDOM FROM BEETLE ATTACK

PROCEDURE.

Take 5 cigars and visually examine the surface of each for the presence of any penetrations by tobacco beetles. Cut open these cigars one by one on clean white sheet of paper.

Examine the cut material carefully for the presence of tobacco beetle and all its stages which are egg, larval, pupal and alive or dead adult, either visually or with the help of hand lens.

ANNEX B: SAMPLING OF CIGAR

B-1 In drawing, preparing, storing and handling samples, the following precautions and directions shall be observed.

B-1.1 Precautions shall be taken to draw samples so as to protect the sample, the material to be sampled and the receptacles for samples from loss or gain of moisture and from adventitious contamination.

B-1.2 The samples shall be placed in clean and dry receptacles. The receptacles shall be sealed air tight after filling and marked with full details of sampling, date of manufacture, name of the manufacturer and other important particulars of the consignment.

B-1.3 Samples shall be stored in such a manner that the conditions of storage do not duly affect the quality of the material.

B-1.4 Sampling shall be done by person agreed to between the purchaser and the vendor and in the presence of the purchaser (or his representative) and vendor (or his representative.)

B-2 SCALE OF SAMPLING

B-2.1 All the bulk containers in a single consignment of the material pertaining to the same brands shall constitute a lot. If the consignment is declared to consist of different brands, the bulk containers belonging to the same brand shall be grouped together to constitute a lot.

B-2.1.1 Samples shall be tested for each lot for ascertaining conformity of the materials to the requirement of this specification.

B-2.2 The number of bulk container to be selected from the lot shall depend on the size of the lot and shall be in accordance with Table 2.

Table 2: Number of bulk containers to be selected for sampling.

Lot size (N)	Number of bulk containers to be selected(n)
Below 5	2
6 to 10	3
Over 10	4

B-2.3 these bulk containers shall be chosen at random and for this purpose some random number as agreed to between the purchaser and vendor shall be used. Incase such table is not available the following procedure shall be adopted.
Arrange all the bulk containers in the lot in order and count them as 1,2,3…, up to r and so on, every r^{th} bulk container thus counted shall be withdrawn to give a sample for test, where r=N/n (see Table 2). If r comes to be a fractional number, its value shall be taken as equal to the intergral part of it.

B-3 PREPARATION OF SAMPLE.

B-3-1 Individual samples
The number of packets to be taken at random from each selected bulk container shall be sufficient so that to give about 300g of materials. The materials so taken shall be mixed, 150g of the same shall be taken, crushed into small pieces, thoroughly mixed together and divided into three equal parts. Each part shall constitute an individual sample representing the bulk container and shall be transferred immediately to thoroughly clean and dry receptacles and sealed air-tight. The receptacles shall be labelled with the particulars given under B-1-2

The individual samples so obtained from the lot shall be divided into three sets in such away that every set has an indvidual sample representing each selected bulk container. One of these sets shall be marked for the purchaser, another for the vendor and the third for the referee and all the three sets shall bear the seals of purchaser and the vendor.

B-3.2 Composite sample
From the portion of the material left over after preparing the individual sample (see B-3.1), equal quantities of the material shall be taken for each selected container and well mixed together to form a composite sample of about 150g for the lot.

The composite sample shall be divided into three equal parts, one for the purchaser, another for the vendor and the third for the referee and all the three samples shall bear the seals of the purchaser and the vendor.

B-3.3 Referee sample.
Referee sample shall consist of sets of individual samples (**see B-3.1**) and a composite sample (**see B-3.2**) marked for this purpose and shall bear the seals of the purchaser and the vendor. These shall be kept at a place agreed to between the two.

B-4 NUMBER OF TESTS.

B-4.1 Tests for determination of moisture content, nicotine and total ash shall be conducted on each of the individual sample **(see B-3.1**)

B-4.2 Tests for the determination of the remaining characteristics shall be conducted on the composite sample (**see B-3.2**)**.**

B-5 CRITERIA FOR CONFORMITY.

B-5.1 A lot shall be declared as conforming to the specifications when;

a) Each of the test result for moisture content, nicotine, and total ash satisfies the corresponding requirement specified in table 1. If, however, one or more test results do not satisfy the respective requirement the conformity of the lot shall be ascertained in accordance with B-5.1.1
b) The test results on the composite samples for the remaining requirement for moisture content, nicotine and total ash, the following procedure shall be adopted for determining conformity of the material in respect of these characteristics:

The mean and the range of the responding test results shall be calculated as:

$$\text{Mean } (\overline{X}) = \frac{\text{Sum of the test results}}{\text{Number of the test result}}$$

Range (R) =Difference between the maximum and the minimum of the test results.

The appropriate expression as shown in column 6 of the table 3 shall be calculated. If the values of these expression satisfy the relevant conditions as given in column 6 of the table 3, the lot shall be deemed to have satisfied the requirement for moisture content, nicotine and total ash.

S/NO	Characteristics	Test Results 1,2,3…n	Average	Range	Criterion for conformity

i	Moisture content	-	X_1	R_1	$X_1 \pm 0.4$ R_1 shall lie between 11 and 16.0
ii	Nicotine	-	X_2	R_2	$X_2 + 0.4$ $R_2 \leq 3.0$
iii	Total ash	-	X_3	R_3	$X_3 + 0.4$ $R_3 \leq 25.0$

ANNEX C: DETERMINATION OF MOISTURE CONTENT

The loss in mass when tobacco is heated in air at a temperature of 105 ± 5 ^{0}C is conventionally designated as moisture. The contribution made by small amounts of other volatile constituents are being regarded as negligible for practical purposes

C.1 PRINCIPLE

Heating a test portion of the tobacco in an oven at 105 ± 5 ^{0}C, to constant mass.

C.2 APPARATUS

Usual laboratory apparatus, and the following items:

C2.1 Weighing bottle, with airtight lid

C2.2 Constant-temperature oven, capable of being controlled at 105 ± 5 ^{0}C.

C2.3 Desiccator, containing an efficient desiccant.

C2.4 Analytical balance.

C.3 SAMPLING

Sample the tobacco in accordance with ISO *8243*

C.4 PROCEDURE

C4.1 Preparation of weighing bottle

Remove the lid from the weighing bottle (2.1) and heat both for 1 h in the oven (2.2) at 105 ± 5 ^{0}C. Cool in the desiccator (2.3). After cooling, fit the lid and weigh to the nearest 0.001 g.

C4.2 Preparation of test Sample

Thoroughly mix the sample of tobacco

C4.3 Test Portion

Weigh, to the nearest 0,001 g, about 5 g of the test Sample into the prepared weighing bottle (2.1).

C4.4 Determination

Heat the weighing bottle and contents, with the lid removed but alongside the bottle, in the oven (2.2) at 105 ± 5 ^{0}C for 6 h. Cool in the desiccator (2.3), fit the lid and weigh. Return the bottle and its lid to the oven and heat again for 1 h, cool in the desiccator, fit the lid, and weigh; repeat these operations, if necessary, until the difference between two successive weighing does not exceed 0,005 g. If the mass of the test portion increases after repeated heating, calculate the result from the weighing immediately before the mass starts to increase.

Carry out two separate determinations on the same prepared test sample (4.2).

Note

In general, a single 16 h period in the oven at 105 ±0.5 ^{0}C gives equivalent results, but it is the responsibility of the analyst to confirm this in each particular case.

C.5 EXPRESSION OF RESULTS

C5.1 Calculation

The loss in mass at 105 ±5 ^{0}C, expressed in percentage by mass is given by the formula

$(M_0 - m_1) \times 100/M_0$

M_0 is the initial mass in grams of the test portion

m_1 is the mass in grams of the dried test portion

Take the results of the two determinations and calculate the arithmetic mean provided that the requirement for repeatability (see 5.2) is satisfied

C5.2 Repeatability

The difference between the results of two determinations, carried out simultaneously or in rapid succession by the same analyst, shall not exceed 0.5 g per 100 g of sample

C.6 TEST REPORT

The test report shall show the method used and the result obtained. It shall also mention any operating details not specified in this draft standard, or regarded as optional, as well as any circumstances that may have influenced the result. The report shall include all details required for complete identification of the sample

ANNEX D: DETERMINATION OF TOTAL ASH CONTENT

D.1. PRINCIPLE

Destruction of organic matter by heating at 550 ± 25 ^{O}C to constant mass.

D.2. APPARATUS

The usual laboratory apparatus and the following items to be used in the analysis;

D2.1 Dish, of capacity 50 to 100 ml, made of platinum, porcelain or other material unaffected by the conditions of the test.

NOTE - It is considered that silica dishes are unsuitable for use with this test.

D2.2 Furnace, capable of being controlled at 550 ± 25 ^{O}C.

D2.3 Steam bath

D2.4 Hot-plate

D2.5 Desiccator, containing an efficient desiccant.

D2.6 Analytical balance.

D2.7 Wash bottle

D.3 SAMPLE

Use a ground Sample of known dry matter content.

D.4 PROCEDURES

D4.1 Preparation of the dish

Heat the dish (2.1) for 2 hrs in the furnace (2.2) at 550 ± 25^{O}C. Cool in the desiccator (2.5). After cooling, weigh to the nearest 0.001 g.

D4.2 Test Portion

Weigh, to the nearest 0.001 g, about 5 g of the ground sample into the prepared dish.

D4.3 Determination

Heat the test Portion in the dish, at a temperature near 100 ^{O}C until the moisture is expelled. Transfer the dish to the furnace (2.2) and heat at 550 ± 25 ^{O}C until the ash is visibly free from carbon particles (at least 2 h is usually required).

Allow to cool, then moisten the ash with distilled water, dry it on the steam bath (2.3) and then on the hot-plate (2.4). Return the dish to the furnace for 60 min, cool in the desiccator and weigh. Heat again in the furnace for 30 min, cool and weigh. Repeat these operations, if necessary, until the difference between two successive weights does not exceed 0.001 g.

Carry out two separate determinations on the same ground sample

D.5 EXPRESSION OF THE RESULTS

D5.1 Calculation

The total ash yielded by the ground Sample, expressed as a percentage by mass on the dry basis, is given by the formula:

$$= \frac{10000w}{W(100-M)}$$ where

W= is the mass in grams, of the test Portion;

w= is the mass in grams, of the total ash;

M= Moisture content, percent by mass as prescribed in Annex C

Take the results of the two determinations and calculate the arithmetic mean, provided that the requirement for repeatability (see 5.2) is satisfied.

D5.2 Repeatability

The difference between the results of two determinations carried out simultaneously or in rapid succession by the same analyst shall not exceed 0.2 g of total ash per 100 g of ground Sample.

D6 TEST REPORT

The test report shall show the method used and the result obtained. It shall also mention any operating details not specified in this draft standard, or regarded as optional, as well as any circumstances that may have influenced the result. The report shall include all details required for complete identification of the sample.

ANNEX E: DETERMINATION OF TOTAL CHLORIDES

E.1 PRINCIPLE

Total chlorides is determined by potentiometric titration using silver nitrate solution

E.2 APPARATUS

E2.1 pH meter, equipped with silver and glass electrode.

E2.2 Burette, 10 ml capacity, graduated in 0.05 or 0.02 ml, units.

E3 REAGENTS

E3.1 *Standard Silver Nitrate Solution,* 0.1 N. Standardize against potassium chloride

E3.2 *Dilute Nitric Acid,* 1: 9 *(v/v).*

E.4 PROCEDURES

Weigh accurately about 2 g of tobacco into a 250 ml beaker. Add 100 ml of water, a small amount in the first instance to wet the tobacco thoroughly and then the remainder. Allow it to stand for at least 5 minutes at room temperature (20 to 25^0C), stirring intermittently. Add 5 ml of dilute nitric acid into the mixture and insert the clean electrodes. Start magnetic stirrer and continue stirring throughout titration at a rate sufficient to produce vigorous agitation without sputtering. Titrate with standard silver nitrate solution to the potential previously established as equivalent point. Determine equivalence point graphically by making several titrations on one or more tobacco samples. Recheck occasionally and determine when either electrode is replaced. Record the volume of the titrant.

E.5 CALCULATION

Total chlorides (on dry basis), expressed in percentage by mass is calculated using the formula:

$$\frac{V \times N \times 3.54533}{W}$$

where
V = volume in ml, of silver nitrate solution
required for the test;
N = normality of silver nitrate solution; and
W = mass in g of the sample taken for the test.

E.6 REPORTING

E6.1 Basis of Expression of Results

The results of test according to any of the agreed methods shall be reported as a percentage of the water-free mass of the sample and if higher precision is required, of the water and silica-free mass of the sample.

E6.2 Mode of Expression of Results

E6.2.1 In the case of samples where the percentage as calculated is found to be less than 0.01, the results shall be reported as (mg/kg or a similar basis) to the nearest 0.1 or 1 mg/kg according to the precision of the method.

E6.2.2 In the case of samples where the percentage as
calculated is greater than 0.01 but less than 5.0 percent, the results shall be reported to the nearest 0.1 percent or 0.01 percent according to the precision of the method.

E6.2.3 In the case of samples where the percentage calculated is greater than 5.0 the results shall be reported to the nearest 0.1.

BIBIOGRAPHY

TZS 1965: 2017 Cigar tobacco — Specification