DEAS 342: 2021

ICS 71.100.70

DRAFT EAST AFRICAN STANDARD

Pomades and solid brilliantines — Specification

EAST AFRICAN COMMUNITY

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Copyright notice

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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 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.

This third edition cancels and replaces the second edition (EAS 342:2013), which has been technically revised.

Pomades and solid brilliantines — Specification

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for pomades and solid brilliantines.

It applies to pomades and solid brilliantines which are either vegetable oil or petroleum based but excludes oil emulsions.

This draft East African standard does not cover liquid brilliantines.

This Draft East African standard does not cover pomades and solid brilliantines for which therapeutic claims are made.

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 346, *Labelling of cosmetics — General requirements*

EAS 377 (all parts), Cosmetics and cosmetic products

EAS 846 Glossary of terms relating to the cosmetic industry

EAS 847-13, Cosmetics —Analytical methods —Part 13: Determination of rancidity

EAS 847-16, Cosmetics —Analytical methods —Part 16: Determination of lead, mercury and arsenic content

EAS 847-22, Cosmetics —Analytical methods —Part 22: Determination of sulphurs and sulphides in oils

ISO 18416, *Cosmetics —Microbiology —Detection of Candida albicans*

ISO 21149, *Cosmetics --Microbiology --Enumeration and detection of aerobic mesophilic bacteria*

ISO 22717, *Cosmetics —Microbiology —Detection of Pseudomonas aeruginosa*

ISO 22718, *Cosmetics —Microbiology —Detection of Staphylococcus aureus*

ISO 24153, *Random sampling and randomization procedures*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EAS 846 and the following 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
brilliantine
hair-grooming product intended to soften hair and give it a glossy appearance

3.2
pomade
greasy, waxy, or a water-based substance that is used to style hair

4 Requirements

4.1 General requirements

4.1.1 All ingredients used in the manufacture of pomades and solid brilliantines shall comply with all parts of EAS 377**.**

4.1.2 The pomade and solid brilliantine shall be in the form of a soft, homogenous unctuous mass.

4.2 Specific requirements

The pomades and solid brilliantines shall comply with the specific requirements given in Table 1 when tested according to the methods prescribed therein.

Table 1 — Specific requirements for pomades and solid brilliantines

S.No.	Characteristic	Requirement	Test method
i)	Melting point, °C	38 - 60	Annex A
ii)	Sulphated ash, % by mass, max	0.10	Annex B
iii)	Sulphur and sulphides	To pass the test	EAS 847-22
iv)	Consistency, 1/10 mm	100 - 275	Annex C
v)	Test for rancidity	Shall be free from rancidity	EAS 847-13
vi)	Bleed number	5 to 15	Annex D
vii)	Stability	To pass the test	Annex E

4.3 microbiological limits

Pomades and solid brilliantines shall also comply with the microbiological limits given in Table 2 when tested in accordance with the methods indicated therein.

Table 2 — Microbiological limits for pomades and solid brilliantines

Micro-organisms	Limits, max.	Test method
Total viable count, CFU/g or CFU/ml, max.	100	ISO 21149
Pseudomonas aeruginosa	Not detected in 1 ml or 1 g of cosmetic product	ISO 22717
Staphylococcus aureus		ISO 22718
Candida albicans		ISO 18416
Escherichia coli	Not detected in 1 g of cosmetic product	ISO 21150

4.4 Heavy metal contaminants

The pomade and solid brilliantine shall comply with the limits for heavy metal contaminants in accordance with Table 3.

Table 3 — Limits for heavy metal contaminants of pomades and solid brilliantines

S.No.	Characteristic , max	Maximum Limit, Mg/kg	Test method
i)	Lead	10	EAS 847-16
ii)	Arsenic	2	
iii)	Mercury	2	
NOTE The total amount of heavy metals as lead, mercury and arsenic, in combination, in the finished product should not exceed 10 mg/kg.			

5 Packaging

The product shall be packaged in suitable well-sealed containers that shall protect the contents and shall not cause any contamination or react with the product.

6 Labelling

In additional to the labelling requirements given in EAS 346, the package shall be legibly and indelibly marked with the product name as “pomade” or “ Solid brilliantine”

7 Sampling

Sampling shall be carried in accordance with ISO 24153.

Annex A
(normative)

Determination of melting point

A.1 Heat a quantity of the sample on a water bath while stirring until it reaches a temperature of 90 °C to 92 °C. Cool the molten sample to a temperature of 8 °C to 10 °C above the expected melting point. Chill the bulb of a thermometer (range 1 °C to 100 °C) to 5 °C, wipe it dry and while it is still cold, dip it into the molten sample so that approximately half of the bulb is submerged. Withdraw it immediately and hold it vertically away from heat until the wax surface dulls, then dip it for 5 min into a water bath having a temperature not higher than 16 °C.

A.2 Fix the thermometer prepared in securely in a test tube so that its lowest point is about 15 mm above the bottom of the test tube. Suspend the test tube in a water bath adjusted to 16 °C and raise the temperature of the bath at a rate of 2 °C per minute upto 30 °C, then change the rate of rise to 1 °C per min and note the temperature at which the first drop of the melted sample leaves the thermometer. Repeat the determination twice on a freshly melted portion of the sample. If the variation in three determinations is less than 1 °C take the average of the three as the melting point. If the variation in three determinations is more than 1 °C, make two additional determinations and take the average of five.

Annex B
(normative)

Determination of sulphated ash

B.1 Reagents

Dilute sulphuric acid, approximately 5 N

B.2 Procedure

Heat a porcelain or silica dish of 50 mL to 100 mL capacity to redness; cool in a desiccator and weigh. Place about 20 g of the sample, accurately weighed, in the dish. Heat the dish gently by means of a Bunsen burner until the oil can be ignited at the surface. Remove the burner and allow the oil to burn completely, taking care that all the free carbon on the sides of the dish is completely burnt. Heat the residue with a strong flame or in a muffle furnace until all the carbonaceous matter has disappeared. Cool the dish; add a few drops of dilute sulphuric acid; heat gently to drive off the acid and then heat strongly. Cool the dish again in the desiccator and weigh it. Repeat the heating, cooling and weighing until constant mass is obtained.

B.3 Calculation

The sulphated ash content shall be calculated as follows

$$\text{Sulphated ash, \% by mass} = \frac{M_2 - M_1}{M} \times 100$$

where

M_1 is the mass in g of the residue, and

M_2 is the mass in g of the sample taken for the test.

Annex C
(normative)

Determination of consistency

C.1 Principle

Measuring penetration makes determination of consistency of the material of a standard cone at 25.0 °C ± 0.5 °C.

C.2 Apparatus

C.2.1 Penetrometer

Any suitable penetrometer which permits the specified cone to drop vertically without appreciable friction for at least 40 mm and which indicates accurately the depth of penetration to the nearest 0.1 mm. The instrument shall have a table to carry the test sample that may be adjusted to the horizontal before conducting the test. A mechanism for releasing and clamping the loaded cone shall be provided.

C.2.2 Cone

Consisting of a conical body of brass or corrosion resistant steel with detachable hardened steel up. The total moving mass, namely, that of the cone and its movable attachments shall be 150.0 g ± 0.1 g. The attachments consist of a rigid shaft having a suitable device at its lower end for engaging the cone. The outer surface shall be polished to a very smooth finish.

C.2.3 Constant temperature bath

A water bath capable of regulating the temperature at 25. °C and of suitable design for conveniently brining the sample container to the test temperature. The bath should be provided with a cover to maintain the temperature of the air above the sample at 25 °C.

C.2.4 Timing device

A stopwatch or any other suitable instrument capable of measuring an interval of 5 s to an accuracy of 0.2 s

C.2.5 Sample container

Flat-bottomed; metal or glass cylinders that are 100 mm ± 5 mm in diameter and not less than 60 mm in height.

C.3 Procedure

C.3.1 Melt a quantity of the sample at 82.0 °C ± 2.5 °C, pour into one or more of the sample containers, filling to within 6 mm of the brim. Cool at 25.0 °C ± 0.5 °C over a period of not less than 16 h, protecting from draughts. 2 h before the test; place the containers in a water bath at 25.0 °C ± 0.5 °C. If the room temperature is below 23.5 °C or above 26.5 °C, adjust the temperature of the cone to 25.0 °C ± 0.5 °C by placing it in a water bath.

C.3.2 Without disturbing the surface of the sample, place the container on the penetrometer table, and lower the cone until the tip just touches the top surface of the sample at a spot 25 nm to 39 mm from the edge of the container. Adjust the zero setting and quickly release the plunger, then hold it free for 5 s. Secure the plunger,

and read the total penetration from the scale. Make three of more trails each so spaced that there is no overlapping of the areas of penetration. Where the penetration exceeds 20 mm, use a separate container of the sample for each trial. Read the penetration to the nearest 0.1 mm. Calculate the average of three or more readings; and conduct further trials to a total of 10 if the individual results differ from the average by more than ± 3 %.

C.4 Calculation

The consistency shall be calculated as follows:

Consistency = 10A

where

A is the mean of all the values of penetration in mm

Annex D
(normative)

Bleed number

Procedure

Heat the sample to 95 °C. Then allow to cool to 100 °C above its melting point. Dip a glass tube (or internal diameter 4 mm and wall thickness 1 mm) into the sample so that when it is removed with the upper end closed with a finger, it contains approximately 25 mm column of molten sample. From approximately 12 mm above the filter paper (Whatman No. 1 or equivalent), allow 5 evenly spaced drops of the sample to fall separately on the paper. The droplets should have a diameter of 6 mm - 8 mm. When the droplets solidify, place the paper on a watch glass and insert in an oven kept at 30 °C for 24 h. After 24 h, determine the diameter of each droplet plus the oil ring which surrounds it. Subtract the diameter of the droplet from the oil ring and record the result in mm. Calculate the average of these result in milimetres.

Annex E
(normative)

Test for stability

E.1 Apparatus

Ultra violet lamp, with emission at 360 mm

E.2. Procedure

Place 50 mL of the material in a 100- mL glass beaker. Turn on the ultra violet lamp and expose the samples at a distance of 12 cm - 14 cm below the lamp for 6 h. After the specified time, remove the sample, cool to room temperature and compare for any change in odour or colour. The same volume of material shall be employed for all tests so that comparison is ensured on a reproducible basis.

NOTE — The output of the ultra violet lamp diminishes with time in service. A log of number of hours of the lamp in use should be maintained. The lamp is to be replaced after the specified hours of service, as recommended by the lamp manufacturer.

E.3 Evaluation

Evaluation is done by comparing the test material against an unexposed specimen from the same sample.

Bibliography

EAS 342: 2013, Pomades and brilliantines — Specification

IS 9339:1988, Specification for Pomades and brilliantines