



CD/K/604:2010
ICS 67.120.20

EAST AFRICAN STANDARD

Preserved eggs-in-shell — Specification and grading

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:

Regulations Governing the Voluntary Grading of Shell Eggs, 7 CFR Part 56, Effective March 30, 2008

United States Standards, Grades, and Weight Classes for Shell Eggs, AMS 56, Effective July 20, 2000

UNECE EP 45:1976/1994, *Preserved eggs-in-shell*

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

USDA Foreign Agricultural Service website: <http://www.mrldatabase.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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Preserved eggs-in-shell — Specification and grading

1 Scope

This East African Standard applies to hen eggs-in-shell fit for direct human consumption.

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.

AOAC Official Method 931.06:1931, *Phosphorus (Total) (P_2O_5) in Eggs*

CAC/RCP 1, *Recommended international code of practice — General principles of food hygiene*

EAS 35, *Edible salt — Specification*

EAS 12, *Drinking (potable water) — Specification*

EAS 38, *Labelling of prepackaged foods — Specification*

EAS 39, *Hygiene in the food and drink manufacturing industry — Code of practice*

EAS 41, *Fruits, vegetables and derived products — Sampling and methods of test*

EAS 103, *Schedule for permitted food additives*

EAS 123, *Distilled water — Specification*

ISO 936, *Meat and meat products — Determination of total ash*

ISO 1736, *Dried milk and dried milk products — Determination of fat content — Gravimetric method (Reference method)*

ISO 1737, *Evaporated milk and sweetened condensed milk — Determination of fat content — Gravimetric method (Reference method)*

ISO 4831, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of coliforms — Most probable number technique*

ISO 4832, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique*

ISO 4833, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Colony-count technique at 30 degrees C*

ISO 5537, *Dried milk — Determination of moisture content (Reference method)*

ISO 5985, *Animal feeding stuffs — Determination of ash insoluble in hydrochloric acid*

ISO 6491, *Animal feeding stuffs — Determination of phosphorus content — Spectrometric method*

ISO 6579, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of *Salmonella* spp.*

ISO 8156, *Dried milk and dried milk products — Determination of insolubility index*

ISO 9390, *Water quality — Determination of borate — Spectrometric method using azomethine-H*

ISO 13730, *Meat and meat products — Determination of total phosphorus content — Spectrometric method*

ISO 21527-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 1: Colony count technique in products with water activity greater than 0.95*

ISO 21527-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

3 Definitions

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

Preserved eggs-in-shell

(Class B) are eggs which have been preserved, whether refrigerated or not, in a gas mixture, the composition of which differs from that of atmospheric air, and from those eggs which have undergone any other preservative treatment.

Foreign matter

consists of organic or inorganic substances of internal or external origin within the contents.

Commodity lot

eggs of one quality class and weight grade packed in uniform containers, from one packing plant, loaded on to one means of transportation, and presented once for control purposes.

Week number

the number referred to shall indicate the complete week beginning on Monday, but it may be used from midnight on Wednesday of the previous week. Every year the numbering shall be continuous from 1 to 52 or 53. The week which includes 1 January shall bear the number 1.

4 Provisions concerning quality

4.1 General

The purpose of the standard is to define the quality requirements which the product must satisfy at all stages of marketing, after preparation and packaging.

4.2 Classification

Preserved eggs-in-shell (Class B) are eggs with the following characteristics:

Shell	normal shape, clean, dry, undamaged, slight deformations permissible. Surface of oiled eggs — slightly shining and eggs in line — slightly mat and rough
Air Space	not more than 9 mm in height. A mobile cavity up to 1/2 the length of the eggs is permissible
Yolk	visible, slightly flattened, mobile
White	translucent, slight thinning permissible
Germ	imperceptible development
Foreign Matter	not permissible

Contents free of foreign smell but a slight smell resulting from the method of preservation used is permissible.

5 Provisions concerning sizing

Eggs shall be graded into following weight grades 1, 2, 3, 4, 5, 6, 7-

Weight Grade a	Weight of eggs in grams b	Minimum weight of 100 eggs in kg c	Minimum weight of 360 eggs in kg d
1	70 and over	7.0	25.20
2	less than 70 to 65	6.6	23.76
3	less than 65 to 60	6.1	21.96
4	less than 60 to 55	5.6	20.16
5	less than 55 to 50	5.1	18.36
6	less than 50 to 45	4.6	16.36
7	less than 45	no net minimum	weight laid down

6 Provisions concerning tolerances

6.1 Quality tolerances

Up to 7 per cent of eggs not meeting the requirements of preserved (Class B) eggs is permissible.

6.2 Size tolerances

Weight tolerances in quantitative percentages. For each weight grade not more than 10 per cent of eggs from the adjoining grade are permissible, provided that not more than 6 per cent of eggs from the lower adjoining grade are included.

7 Provisions concerning packing, transport, storage and presentation

- (i) Packs, including inner packing material must be shock resistant, dry, clean and in good repair and made of materials which protect the eggs from extraneous odour and the risk of quality deterioration.
- (ii) Large packs, used for transporting and dispatching eggs, including inner packing material, shall not be re-used unless they are as new and meet the technical hygiene requirements of paragraph 1. Re-used large packs, must not bear any previous marking likely to lead to confusion. Small packages containing not more than 30 eggs shall not be re-used.
- (iii) Eggs must be stored in clean, dry premises, free of extraneous odour.
- (iv) Eggs in transport must be kept clean, dry and free of extraneous odour and effectively protected from shocks, weather and the effect of light.
- (v) During storage and transport preserved eggs that have also been chilled must be maintained at a temperature between 8°C and 0 °C, in order to maintain their initial quality, and, in any case the eggs must not be re-chilled.

8 Provisions concerning marking

8.1 Marking of Eggs

- (i) Except where countries concerned agree otherwise, the eggs shall carry the name of the country of origin in roman letters.

- (ii) Preserved eggs (Class B) shall bear a distinguishing mark on the shell showing their quality class. They may also bear in roman letters one or more of the following particulars:
 - (a) weight grade
 - (b) the number of the packing station
 - (c) the name or the style of the company of the packing station
 - (d) a brand name or trademark
 - (e) date or week number of packing.
- (iii) The distinguishing mark showing the quality class for preserved eggs (Class B) shall be a rhombus with diagonals of 16 mm and 7 mm. The weight grade may also be indicated by a number between 2 mm and 3 mm high. When eggs are preserved they shall be marked as above before preservation. For eggs preserved in lime, however, these marks may be affixed after the preserving process has been carried out.
- (iv) The marking on eggs shall be clear, indelible, in red colour and be resistant to heat. The products used shall comply with the provisions in force in respect of colouring matters which may be used in foodstuffs intended for human consumption.

8.2 Marking of Packages

- (i) The following information printed on a white label or closing device in roman letters shall be placed over the closure or closures of the large packages so that the label or closing device is destroyed on opening and shall contain the following data:
 - (a) country of origin (except where countries concerned are agreed otherwise)
 - (b) packer and/or dispatcher — name, address or, where countries concerned agree, an officially accepted code mark
 - (c) quality class
 - (d) weight grade, weight in kilograms
 - (e) identification number of commodity lot being sent
 - (f) date or week number of packing
 - (g) particulars as to refrigeration or the method of preservation unencoded.
- (ii) Furthermore in case of transport by sea the inscription "TOP" should be placed in the centre of the lid of the large package or on one of the cardboard flaps parallel to the longer side. At the request of the buyer, additional marking of transportation packaging is permissible.
- (iii) Small packages, even when they are inside large packages shall be marked with the following data:
 - (a) country or origin (except where countries concerned are agreed otherwise)
 - (b) packer and/or dispatcher — name, address or, where countries concerned agree, an officially accepted code mark
 - (c) quality class and weight grade
 - (d) number of eggs packed

- (e) identification number of commodity lot being sent
- (f) date or week number of packing
- (g) particulars as to refrigeration or the method of preservation, uncoded.

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