



DEAS 128:2026  
ICS 67.060

## DRAFT EAST AFRICAN STANDARD

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Milled rice — 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 014, *Cereals, Pulses and related products*

This fifth edition cancels and replaces the fourth edition (EAS 128:2023) which has been technically revised.

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.

## Milled rice — Specification

### 1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for milled rice of the varieties grown from rice grains, (*Oryza* spp.) intended for human consumption.

This standard also applies to milled parboiled rice.

### 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.

CXS 193, *General standard for contaminants and toxins in food and feed*

EAS 38, *Labelling of pre-packaged foods — General requirements*

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

EAS 764, *Rough (paddy) rice — Specification*

EAS 765, *Brown rice — Specification*

EAS 900, *Cereals and pulses — Sampling*

EAS 901, *Cereals and pulses — Test methods*

ISO 6579-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp.*

ISO 6888-1, *Microbiology of the food chain — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Method using Baird-Parker agar medium*

ISO 16649-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

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*

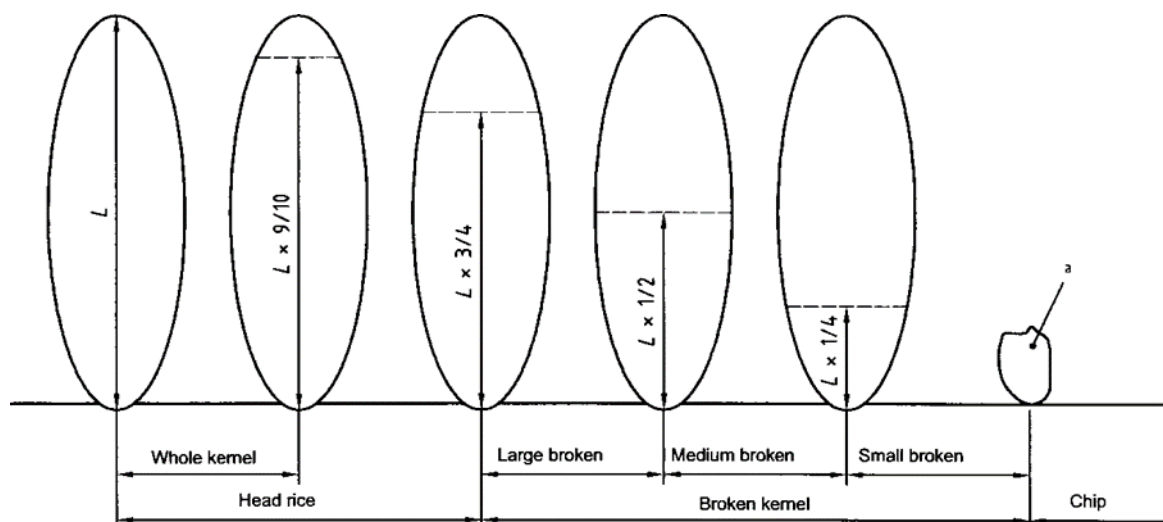
### 3 Terms and definitions

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 milled rice**  
whole or broken kernels of rice (*Oryza* spp.) from which the germ, embryo or at least the outer bran layer have been removed
- 3.2 bran**  
by-product from milling consisting of the outer (pericarp) layers of the kernel with part of the germ
- 3.3 broken kernels**  
pieces of rice that are less than three-quarters of a whole kernel and includes grains of rice in which part of the endosperm is exposed or rice without a germ. If the piece is more than three-quarters of a kernel, it is considered whole.
- 3.4 chalky kernels**  
head rice or broken kernel, except wax rice, whose whole surface has an opaque and floury appearance
- 3.5 damaged rice**  
pest damaged, discoloured, stained, diseased and frost damaged
- 3.6 foreign matter**  
all organic and inorganic material
- 3.6.1 inorganic matter**  
stones, glass, pieces of soil and other mineral matter
- 3.6.2 organic matter**  
any animal or plant matter (seed coats, straws, weeds) other than rice grain, damaged rice grain, other grains, inorganic extraneous matter and harmful/toxic seeds
- 3.7 filth**  
impurities of animal origin
- 3.8 head rice**  
whole kernel or part of the kernel with a length greater than or equal to 75 % of the average length of the test sample kernels (see Figure 1)
- 3.9 immature**  
unripe and/or undeveloped whole or broken kernel
- 3.10 pest damaged grains**  
grains which show damage owing to attack by rodents, insects, mites or other pests
- 3.11 large broken kernel**  
part of kernel with a length less than three-quarters but greater than one half of the average length of the test sample kernels



Key

a Not passing through a round perforation of 1.4 mm in diameter

L is the average length

**Figure 1 — Size of kernels, broken kernels and chips**

### 3.12

#### **medium broken kernel**

part of kernel with a length less than or equal to one half but greater than one quarter of the average length of the test sample kernels (see Figure 1)

### 3.13

#### **paddy rice**

whole or broken unhulled kernels of rice

### 3.14

#### **toxic and/or harmful seeds**

seeds which can have a damaging or dangerous effect on health, sensory properties or technological performance

### 3.15

#### **red kernel**

head rice or broken kernel having a red bran covering more than 25 % of its surface

### 3.16

#### **red-streaked kernel**

head rice or broken kernel with red bran streaks of length greater than or equal to 50 % of that whole kernel, but where the surface covered by these red streaks is less than 25 % of the total surface

### 3.17

#### **food grade packaging material**

packaging material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product

### 3.18

#### **other contrasting varieties**

whole or broken kernels of rice with distinct grain characteristics in size, shape and aroma from the designated variety

**3.19**

**brown (husked) rice**

rice from which only the outermost layer (husk) of a grain has been removed

**3.20**

**milled parboiled rice**

milled rice processed from paddy rice that has been soaked in water and subjected to a heat treatment so that the starch is fully gelatinized followed by a drying process

**4 Classification**

Rice shall be classified as long grain, medium grain or short grain. The classification shall be done in accordance with one of the following specifications:

- a) Option 1 (kernel length/width ratio)
  - i) long grain rice: milled rice with a length/width ratio of 3.0 or more;
  - ii) medium grain rice: milled rice with a length/width ratio of 2.0 – 2.9; and
  - iii) short grain rice: milled rice with a length/width ratio of 1.9 or less.
- b) Option 2 (kernel length)
  - i) long grain rice with a kernel length of 6.6 mm or more;
  - ii) medium grain rice with a kernel length of 6.2 mm or more but less than 6.6 mm; and
  - iii) short grain rice with a kernel length of less than 6.2 mm.
- c) Option 3 (combination of the kernel length and the length/width ratio)
  - i) long grain rice with either:
    - 1) kernel length of more than 6.0 mm and with a length/width ratio of more than 2 but less than 3; or
    - 2) kernel length of more than 6.0 mm and with a length/width ratio of 3 or more.
  - ii) medium grain rice with a kernel length of more than 5.2 mm but not more than 6.0 mm and a length/width ratio of less than 3; and
  - iii) short grain rice with a kernel length of 5.2 mm or less and a length/width ratio of less than 2.

**5 Requirements**

**5.1 General requirements**

**5.1.1** Milled rice shall be obtained from rough or brown rice complying with EAS 764 or EAS 765 respectively.

**5.1.2** Milled rice shall be:

- a) clean, wholesome, uniform in size, colour and shape;
- b) safe and suitable for human consumption;

- c) free from abnormal flavour, musty, or other undesirable odour and objectionable smell; and
- d) free from live pests.

## 5.2 Specific requirements

Milled rice grains shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

**Table 1 — Specific requirements for milled rice**

S/N	Characteristic	Requirement max.			Test method
		Grade 1	Grade 2	Grade 3	
i.	Broken kernels, %, m/m	5	15	25	EAS 901
ii.	Damaged rice, %, m/m	1.5	2	3.0	
iii.	Chalky and immature kernels, %, m/m	2	4	10	
iv.	Red or red-streaked kernels, %, m/m	2	6	12	
v.	Other contrasting varieties, %, m/m	1	2	3	
vi.	Foreign matter, %, m/m	0.2	0.3	0.6	
vii.	Inorganic matter, %, m/m	0.1			
viii.	Paddy/husked rice, %, m/m	0.3			
ix.	Filth, %, m/m	0.1			
x.	Moisture content, %, m/m	14			

## 6 Contaminants

### 6.1 Pesticide residues

Milled rice shall comply with pesticide residue limits established by the Codex Alimentarius Commission.

### 6.2 Heavy metals

Milled rice shall comply with levels for heavy metals specified in CXS 193.

### 6.3 Aflatoxins

Milled rice shall comply with levels for aflatoxins given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Aflatoxin limits for milled rice

S/N	Aflatoxin	Maximum limit µg/kg	Test method
i.	Total aflatoxins (AFB1+AFB2+AFG1 +AFG2)	10	EAS 901
ii.	Aflatoxin B1	5	

## 7 Hygiene

7.1 Milled rice shall be produced, prepared and handled in accordance with EAS 39.

7.2 Milled rice shall comply with the limits given in Table 3 when tested in accordance with the test methods specified therein.

Table 3 — Micro-organisms limits for milled rice

S/N	Micro-organism	Limit	Test method
i.	<i>Escherichia coli</i> , in cfu/g, max.	10 <sup>2</sup>	ISO 16649-2
ii.	<i>Salmonella</i> spp. per 25 g	Absent	ISO 6579-1
iii.	Yeast and moulds, per g, max.	10 <sup>4</sup>	ISO 21527-2
iv.	<i>Staphylococcus aureus</i> cfu/g, max.	10 <sup>3</sup>	ISO 6888-1

## 8 Packaging

Milled rice shall be packaged in food grade packaging material which will safeguard the hygienic, nutritional, technological and organoleptic qualities of the products.

## 9 Labelling

### 9.1 Labelling of retail containers

The following specific labelling requirements shall apply and shall be legibly and indelibly marked in accordance with the requirements of EAS 38:

- a) product name as “Milled rice”;
- b) class:
  - i) long grain rice;
  - ii) medium grain rice; or
  - iii) short grain rice;

- c) declaration of grade
- d) name, address and physical location of the manufacturer/packer/importer;
- e) batch number;
- f) net weight, in metric unit;
- g) the declaration “Food for human consumption”;
- h) storage instruction as “Store in a cool dry place away from any contaminants”;
- i) crop year;
- j) packing date;
- k) country of origin;
- l) declaration on whether the milled rice was genetically modified or not; and
- m) best before date.

## 9.2 Labelling of non-retail containers

When labelling non-retail packages, information for non-retail packages shall either be given on the packages or in accompanying documents, except that the name of the product, grade, lot identification and the name and address of the processor or packer as well as storage instructions, shall appear on the container.

However, lot identification, and the name and address of the processor or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents.

## 10 Sampling

Sampling shall be done in accordance with EAS 900.

## Bibliography

EAS 128:2023, *Milled rice — Specification*

DEAS 128:2026 for Public Review

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