



**DEAS 1:2016**

ICS 67.060

## **DRAFT EAST AFRICAN STANDARD**

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**Wheat flour — 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.

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.

*EAS 1 was prepared by Technical Committee EAS/ TC 014, Cereals and pulses.*

*This second/third/... edition cancels and replaces the first/second/... edition (EAS nnn-n:19xx), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.*

## Wheat flour — Specification

### 1 Scope

This Draft East African Standard specifies the requirements, methods of sampling and test for wheat flour prepared from common wheat, *Triticum aestivum* L. or club wheat, *Triticum compactum* Host, or mixtures thereof intended for human consumption. It does not apply to wheat flour obtained from *Triticum durum* and fortified wheat flour.

### 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.

*EAS 35, Edible salt — Specification*

*EAS 38, Labelling of prepackaged foods — Specification*

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

*EAS 51, Grades of wheat grain — Specification*

*EAS 82, Milled cereal products — Methods of test*

*EAS 103, Schedule for permitted food additives*

*ISO 16050, Foodstuffs — Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products — High-performance liquid chromatographic method*

*ISO 13690, Cereals, pulses and milled products — Sampling of static batches*

*CODEX Stan 193, Codex general Standards for contaminants and toxins in food and feed*

*ISO 5498, Agricultural food products — Determination crude fibre content — General method*

*ISO 2171, Determination of ash content*

*ISO 1871, Food and feed products — General guidelines for the determination of nitrogen by the Kjeldahl method*

### 3 Terms and definitions

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

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### 3.1

#### **wheat flour**

product prepared from common wheat grain, *Triticum aestivum* L. or Club wheat, *Triticum compactum* Host, or mixtures thereof by grinding or milling process

### 3.2

#### **white wheat flour**

wheat flour obtained by milling wheat grains at extraction rates that leaves negligible amounts of bran

### 3.3

#### **baker's flour**

white wheat flour made from semi hard/hard wheat which has a medium to high protein content intended for bread making

### 3.4

#### **home baking /all-purpose flour**

white wheat flour obtained by milling either soft wheat grains or blends of hard and soft wheat grains used for making wide range of baked products

### 3.5

#### **biscuit flour**

white wheat flour obtained by milling soft wheat or a blend of hard and soft wheat with a high percentage of soft wheat for biscuit manufacture

### 3.6

#### **cracker flour**

white wheat flour obtained by milling medium protein wheat with no improvers

### 3.7

#### **self-raising flour**

white wheat flour obtained by milling soft or a blend of soft and hard wheat to which raising agents are added

### 3.8

#### **standard flour**

wheat flour obtained by milling wheat grains at a higher extraction than home baking flour

### 3.9

#### **wholemeal flour**

wheat flour obtained by milling the entire wheat grain to fine particle size without any separation

### 3.10

#### **atta flour**

wheat flour of high extraction rate or white wheat flour to which pollard and or bran are blended

### 3.11

#### **food grade container**

container which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product

### 3.12

#### **foreign matter**

organic or inorganic material other than wheat flour

## 4 Requirements

### 4.1 General requirements

4.1.1 The wheat grain from which the flour is obtained shall comply with EAS 51.

**4.1.2** Edible salt, if used, shall conform to EAS 35.

**4.1.3** Wheat flour shall have the characteristic colour and shall

- a) be free from any objectionable flavours and odours;
- b) be free from insects, worms, fungal infestation, rodent contaminations and foreign matter;
- c) not contain flour from other cereals.

However, the addition of malted barley flour not exceeding 1 % is permissible in the case of baker's flour.

## 4.2 Specific requirements

All types of wheat flour shall conform to the compositional requirements given in Table 1.

In addition to the requirements in Table 1, self-raising flour shall contain the following:

- a) Sodium bicarbonate in sufficient amounts to provide not less than 0.4 % of available carbon dioxide;
- b) Acid ingredients singly or in combination including sodium acid pyrophosphate, mono acid calcium phosphate and sodium aluminium phosphate; and
- c) Edible salt may be added in self raising flour.

**Table 1 — Specific requirements**

S/No.	Types of flour	Moisture content, max. %, m/m	Crude fibre content, max. %, m/m	Total ash content, max. %, m/m	Residue on sieving through 180 micron sieve, max. %	Crude protein content, min. %, m/m
i)	White wheat flour:	14	1.0	0.8	0.5	9.0
ii)	Baker's flour	14	1.0	0.8	0.8	11.0
iii)	Home baking flour	14	1.0	0.8	0.8	8.0
iv)	Biscuit flour	14	1.0	0.8	0.8	8.0
v)	Cracker flour	14	1.0	0.8	0.8	8.0
vi)	Self-raising flour	14	1.0	3.0	0.80	8.0
vii)	Standard flour	14	1.5	1.10	30.0	11.0
viii)	Atta flour	14	2.0	2.0	55.0	8.0
ix)	Whole-meal flour	14	2.0	2.0	30.0	8.0
x)	Test methods	ISO 6540	ISO 5498	ISO 2171		ISO 1871



## 5 Food additives

Wheat flour may contain only the permitted food additives in the Codex Stan 192. The use of Azordicarbonamide (ADA) and potassium bromate is not allowed.

## 6 Hygiene

6.1 Wheat flour shall be prepared and handled in accordance with EAS 39.

6.2 The product shall conform to microbiological limits in Table 2.

**Table 2 — Microbiological limits**

S/No.	Micro-organism	Maximum limit	Methods of test
i)	Total aerobic count per g	10 <sup>5</sup>	ISO 4832
ii)	<i>E. Coli</i> per 1 g	Absent	ISO 16649-1
iii)	<i>Salmonella</i> per 25 g	Absent	ISO 6579
iv)	Yeast and Moulds cfu/g	10 <sup>4</sup>	ISO 7954
v)	<i>S.aureus</i> per 25 g	10 <sup>2</sup>	ISO 6888-1

## 7 Contaminants

### 7.1 Heavy metals

Wheat flour shall conform to those maximum limits for heavy metals established by the Codex Alimentarius Commission as specified in Table 3.

**Table 3 — Heavy metals limits**

S/N	Heavy metal	Limits (mg/kg)	Test methods
i)	Arsenic (As)	0.1	ISO 27085
ii)	Lead (Pb)	0.2	ISO 6633
iii)	Cadmium (cd)	0.1	ISO 6561-1 or ISO 6561-2

### 7.2 Pesticide residues

Wheat flour shall conform to those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

### 7.3 Mycotoxins

Wheat flour shall conform to the maximum mycotoxin limits established by the Codex Alimentarius Commission as specified in Table 4.

**Table 4 — Mycotoxins limits**

S/N	Mycotoxins	Limits	Test methods
i)	Total aflatoxins, µg/kg, max	10	ISO 16050.
ii)	Aflatoxins B1, µg/kg, max	5	
iii)	Fumonisin, µg/kg, max	2000	AOAC 2001.04

## 8 Weights and measures

The fill and the weight of the product shall conform to weights and measures regulations of the importing partner states.

## 9 Packaging

Wheat flour shall be packaged in food grade containers. When the product is packaged in sacks, these must be clean, sturdy and strongly sewn or sealed.

## 10 Labelling

Labelling shall be done in accordance with EAS 38. At the minimum, the following information shall be displayed:

- a) product name as “wheat flour”;
- b) name, address and physical location of the manufacturer/ packer/importer;
- c) lot/batch/code number;
- d) net weight, in kg;
- e) the declaration “Food for Human Consumption”;
- f) storage instruction as “Store in a cool dry place away from any contaminants”;
- g) date of manufacture;
- h) expiry date;
- i) instructions on disposal of used package; and
- j) country of origin;

## 11 Methods of sampling

Sampling shall be done in accordance with the ISO 24333.

## Bibliography

CODEX STAN 152-1985 (Rev. 1 - 1995), *CODEX Standard for wheat flour*

