

# DRAFT UGANDA STANDARD

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## Pulse flour — Specification

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The Executive Director  
Uganda National Bureau of Standards  
P.O. Box 6329  
Kampala  
Uganda  
Tel: +256 414 333 250/1/2/3  
Fax: +256 414 286 123  
E-mail: [info@unbs.go.ug](mailto:info@unbs.go.ug)  
Web: [www.unbs.go.ug](http://www.unbs.go.ug)

## Foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda, as amended. UNBS is mandated to coordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO) and
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of key stakeholders including government, academia, consumer groups, private sector and other interested parties.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

The committee responsible for this document is Technical Committee UNBS/TC 2, *Food and Agriculture*, Subcommittee SC 3, *Cereals, pulses and related products*.



# Pulse flour — Specification

## 1 Scope

This working Draft Uganda Standard specifies requirements and methods of sampling and test pulse flour for human consumption

NOTE: This standard does not apply to soy bean flour for which standards exist

## 2 Normative references

The following referenced documents 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 38, Labelling of pre-packaged foods — Specification*

*EAS 39, Code of practice for hygiene in the food and drink manufacturing industry*

*US EAS 803, Nutrition labelling— Requirements*

*US EAS 804, Claims— General requirements*

*US EAS 805, Use of nutrition and health claims— Requirements*

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

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

*US ISO 7251, Microbiology of food and animal feeding stuffs -- Horizontal method for the detection and enumeration of presumptive Escherichia coli -- Most probable number technique*

*US45, General standard for the labelling of food additives*

*US ISO 1871, Agricultural food products — General directions for the determination of nitrogen by the Kjeldahl Method*

*US ISO 24333, Cereals, and cereal products — Sampling*

*USISO 2171, Cereals, pulses and by-products — Determination of ash yield by incineration*

*USISO 11085, Cereals, cereals-based products and animal feeding stuffs -- Determination of crude fat and total fat content by the Randall extraction method*

*US ISO 24557:2009 Pulses-determination of moisture content —Air oven*

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

*ISO 17764-1, Animal feeding stuffs -- Determination of the content of fatty acids -- Part 1: Preparation of methyl esters*

### 3 Terms and definitions

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

- 3.1 Foreign matter**  
all organic and inorganic material (such as sand, soil, glass) other than pulse seeds, broken kernels and other grains
- 3.2 Admixture**  
any pulse other than the principal pulse
- 3.3 Damaged or discoloured pulses**  
Pulses which are damaged, by heat, frost or water
- 3.4 Weevilled pulses**  
are those pulses that are partially or wholly bored or eaten by weevil or other grain insects
- 3.5 Brokens**  
pieces of pulse seeds which pass through a 4.50 mm round hole metal sieve
- 3.6. Fragments**  
include pieces below  $\frac{1}{4}$  of the full size splits
- 3.7 Partially husked splits and wholes (both husked and unhusked)**  
Include Pieces that are partially husked; and wholes whether with husk or without husk.
- 3.8. Slightly touched pulses check for the availability**  
are those pulses that are superficially damaged or discoloured such damaged or discolouration not materially affecting the quality of the pulse.
- 3.9 food packaging materials**  
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

### 4 Description

Pulse flour shall be prepared from either from roasted/raw/extruded ground flour which conforms to the specific Uganda Standard

## 5 Quality Requirements

### 5.1 General characteristics:

Pulse flour shall be

- a) the product obtained by pure, clean, dried class of pulse
- b) free from any extraneous matter,.
- c) free from insect and fungal infestation and rodent contamination.
- d) free from any admixture of flour

### 5.2 Specific Requirements

The pulse flour shall conform to the compositional requirements in Table 1

Table 1 —Quality requirements for pulses flour

S/N	Compositional Requirement	Quality Limits	Method Of Test
i	Moisture, (max), %, by weight Max.	12.5%	US ISO 24557
	Total fat , m/m, %, max		US ISO 11085
ii	Total ash* (on dry basis) % by weight Max	4.0	US ISO 2171
lii	Acid insoluble ash, max,%	0.35	US ISO 5985
iv	Crude Protein (Nx6,25), min	21.0	US ISO 20483
lv	Fatty acid, max, mg/l	50	ISO 17764-1

### 5.3 Particle size

When tested in accordance with EAS 82, not less than 90 % shall pass through a 0.60-mm sieve for fine flour and not less than 90 % shall pass through a 1.20-mm sieve for coarse flour.

## 6 Food additives

Food additives may be used in flour in accordance with US 45

## 7 Hygiene

7.1 Pulse flour shall be produced and handled in accordance with EAS 39.

7.2 Pulse flour shall comply with microbiological requirements in Table 2

**Table 2 – Microbiological limits for Pulse flour**

S/n	Microorganism	Maximum limit	Method of test
ii	Yeast and moulds , cfu/	10 <sup>3</sup>	US ISO 21527-1
iii	Salmonella spp per 25 g	Absent	US ISO 6579
iv	E.coli , MPN/g	Absent	US ISO 7251

\*)E. coli is used here as an indicator of faecal contamination

## 8 Contaminants

### 8.1 Pesticide residues

Pulse flour shall comply with those maximum pesticide residue limits established by Codex Alimentarius Commission for similar commodities.

### 8.2 Other contaminants

Pulse flour shall comply with those other contaminants limits established in US 738.

### 8.3 Mycotoxins

Pulse flour shall comply with those maximum mycotoxin limits established by Codex Alimentarius Commission for similar commodities.

## 9 Packaging

Pulse flour shall be packaged in food grade materials that will safeguard the hygienic, nutritional and organoleptic qualities of the product.

## 10 Weights and measures

Pulse flour shall be packaged in accordance with the Weights and Measures requirements of the destination country.

## 11 Labelling

**11.1.** In addition to the requirements in US EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly marked

I. The name of the product to be declared on the label shall be "**Pulse flour** " or accompanied by the specific name of the cereal used or "X based snack where X refers to the cereal used

II. Net contents the net contents shall be declared by weight in metric (' Systeme International') units.

III. Name, location and physical address of the manufacturer shall be declared

IV. Country of origin The country of origin shall be declared



- V. Lot identification Each container shall be permanently marked with lot identification
- VI. The statement “store in a cool dry place and away from contaminants”
- VII. Date marking The date of minimum durability shall be declared (‘sell by’ date).date of manufacture
- VIII. Storage conditions
- IX. Best before date
- X. Instructions for disposal of used package
- XI. List of ingredients
- XII. If spiced or flavoured, salty or unsalted, allergens

### **11.2 Nutrition labelling**

The amount of micronutrients in the Pulse flour shall be declared on the label in accordance with US EAS 803.

### **11.3 Nutrition and health claims**

Pulse flour may have claims on the importance of the micronutrients in nutrition and health. Such claims when declared shall be consistent with US EAS 804 and US EAS 805.

## **12 Sampling**

Sampling of Pulse flour shall be in accordance to US ISO 24333

## Bibliography

- [1] EAS 799, Edible full fat soya flour specification
- [2] *IS 14613, Sattu specification*

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## Certification marking

Products that conform to Uganda standards may be marked with Uganda National Bureau of Standards (UNBS) Certification Mark shown in the figure below.

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