

# CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture  
Organization of  
the United Nations



World Health  
Organization

E-mail: [codex@fao.org](mailto:codex@fao.org) - [www.codexalimentarius.org](http://www.codexalimentarius.org)

---

## STANDARD FOR WHEAT FLOUR

CODEX STAN 152-1985

Adopted in 1985. Revision: 1995. Amendment: 2016.

## 1. SCOPE

This standard applies to wheat flour for direct human consumption prepared from common wheat, *triticum aestivum* L., or club wheat, *triticum compactum* Host., or mixtures thereof, which is prepackaged ready for sale to the consumer or destined for use in other food products.

It does not apply:

- to any product prepared from durum wheat, *Triticum durum* Desf., singly or in combination other wheat;
- to whole meal, whole-wheat flour or semolina, farina milled from common wheat, *Triticum aestivum* L., or club wheat, *Triticum compactum* Host., or mixtures thereof;
- to wheat flour destined for use as a brewing adjunct or for the manufacture of starch and/or gluten;
- to wheat flour for non-food industrial use;
- flours whose protein content have been reduced or which have been submitted after the milling process to a special treatment other than drying or bleaching and/or to which have been added other ingredients than those mentioned under Sections 3.2.2 and 4.

## 2. DESCRIPTION

### 2.1 Product definition

Wheat flour is the product prepared from grain of common wheat, *Triticum aestivum* L., or club wheat, *Triticum compactum* Host., or mixtures thereof, by grinding or milling processes in which the bran and germ are partly removed and the remainder is comminuted to a suitable degree of fineness.

## 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 3.1 Quality factors – general

Wheat flour and any added ingredients shall be safe and suitable for human consumption.

Wheat flour shall be free from abnormal flavours, odours, and living insects.

Wheat flour shall be free from filth (impurities of animal origin, including dead insects) in amounts which may represent a hazard to human health.

### 3.2 Quality factors – specific

#### 3.2.1 Moisture content 15.5% m/m max

Lower moisture limits should be required for certain destinations in relation to the climate, duration of transport and storage. Governments accepting the Standard are requested to indicate and justify the requirements in force in their country.

#### 3.2.2 Optional ingredients

The following ingredients may be added to wheat flour in amounts necessary for technological purposes:

- malted products with enzymatic activity made from wheat, rye or barley;
- vital wheat gluten;
- soybean flour and legume flour.

## 4. FOOD ADDITIVES

### 4.1 Enzymes

#### Maximum level in finished product

Fungal amylase from *Aspergillus niger* GMP

Fungal amylase from *Aspergillus oryzae* GMP

Proteolytic enzyme from *Bacillus subtilis* GMP

Proteolytic enzyme from *Aspergillus oryzae* GMP

### 4.2 Flour treatment agents

#### Maximum level in finished product

L-ascorbic acid and its sodium and potassium salts 300 mg/kg

L-cysteine hydrochloride 90 mg/kg

Sulphur dioxide (in flours for biscuit and pastry manufacture only)	200 mg/kg
Mono-calcium phosphate	2 500 mg/kg
Lecithin	2 000 mg/kg
Chlorine in high ratio cakes	2 500 mg/kg
Benzoyl peroxide	60 mg/kg
Azodicarbonamide for leavened bread	45 mg/kg

## 5. CONTAMINANTS

### 5.1 Heavy metals

Wheat flour shall be free from heavy metals in amounts which may represent a hazard to human health.

### 5.2 Pesticide residues

Wheat flour shall comply with those maximum residue limits established by the Codex Alimentarius Commission for this commodity.

### 5.3 Mycotoxins

Wheat flour shall comply with those maximum mycotoxin limits established by the Codex Alimentarius Commission for this commodity.

## 6. HYGIENE

It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CAC/RCP 1-1969) and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to this product.

To the extent possible in good manufacturing practice, the product shall be free from objectionable matter.

When tested by appropriate methods of sampling and examination, the product:

- shall be free from micro-organisms in amounts which may represent a hazard to health;
- shall be free from parasites which may represent a hazard to health; and
- shall not contain any substance originating from micro-organisms in amounts which may represent a hazard to health.

## 7. PACKAGING

Wheat flour shall be packaged in containers which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product.

The containers, including packaging material, shall be made of substances which are safe and suitable for their intended use. They should not impart any toxic substance or undesirable odour or flavour to the product.

When the product is packaged in sacks, these must be clean, sturdy and strongly sewn or sealed.

## 8. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Prepackaged Foods* (CODEX STAN 1-1985) the following specific provisions apply:

### 8.1 Name of the product

The name of the product to be shown on the label shall be "wheat flour."

### 8.2 Labelling of non-retail containers

Information for non-retail containers shall either be given on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the container. However, lot identification and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

**9. METHODS OF ANALYSIS AND SAMPLING**

For checking the compliance with this standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this standard, shall be used.

## ANNEX

In those instances where more than one factor limit and/or method of analysis is given we strongly recommend that users specify the appropriate limit and method of analysis.

<b>Factor/Description</b>	<b>Limit</b>	<b>Method of analysis</b>
<b>ASH</b>	Buyer Preference	AOAC 923.03 ISO 2171:1980 ICC Method No. 104/1 (1990)
<b>FAT ACIDITY</b>	MAX: 70 mg per 100 g flour on a dry matter basis expressed as sulphuric acid – or – Not more than 50 mg of potassium hydroxide shall be required to neutralize the free fatty acids in 100 grammes flour on a dry matter basis	ISO 7305:1986 – or – AOAC 939.05
<b>PROTEIN (5.7)</b>	MIN: 7.0% on a dry weight basis	ICC 105/I Method for the Determination of Crude Protein in Cereals and Cereal Products for Food and for Feed (Type I Method) Selenium/Copper catalyst. – or – ISO 1871:1975
<b>NUTRIENTS</b> i. vitamins ii. minerals iii. amino acids	Conform With Legislation of the Country in Which the Product is Sold	None Defined
<b>PARTICLE SIZE (GRANULARITY)</b>	98% or more of flour shall pass through a 212 micron (No. 70 sieve)	AOAC 965.22