

MAURITIAN  
STANDARD

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**Fortified wheat flour –  
Specification**

ICS 67.060



**Mauritius Standards Bureau  
Moka**

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## **Foreword**

This Mauritian Standard was drawn by the **Food Products Standards Committee (FPSC)** through its Subcommittee on Wheat Flour. It was approved by the Standards Council on 31 March 2023 and was notified in the Government Gazette on **21 April 2023\***.

This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2.

In preparing this standard assistance was derived from the following document and is gratefully acknowledged:

- (i) ARS 860, *Fortified wheat flour – Specification*;
- (ii) SADC/MOH-HIV/2/2020/9 – *SADC Minimum Standards for Food Fortification*;
- (iii) World Food Programme (WFP) – *Technical specifications for fortified wheat flour*;
- (iv) WHO Guideline: *Fortification of wheat flour with vitamins and minerals as a public health strategy*.

**\* General notice No. 529 of 2023**

## Introduction

Anaemia and iron, folate, zinc, vitamin B and iodine deficiencies are the most studied and more prevalent nutritional problems, constituting serious public health problems that particularly affect young children and women. The most common causes of micronutrient deficiencies are related to inadequate intakes, utilization or increased losses. Fortification of industrially processed flour, when appropriately designed and implemented, is an efficient, simple and inexpensive strategy for supplying vitamins and minerals to the diets of large segments of the population. Wheat is cultivated and consumed in many parts of the world and its domestication contributed to the development of farming and human civilization. Industrial fortification of wheat flour with at least iron has been practiced for many years in several countries where the flour is used in the preparation of different types of bread and national dishes.

Decisions about which nutrients to add to fortified wheat flour and how much of each nutrient to use should be based on the nutritional needs and intake gaps of the target populations; the usual level of consumption of wheat flour and products made from this staple; the sensory and physical effects of the fortificant on the flour and on flour products; the type of wheat and the extraction rate of the flour; the availability and coverage of fortification of other staple food vehicles in addition to other commercially available fortified products; the population use of vitamin and mineral supplements; costs; feasibility; and acceptability of the fortified product by the consumers.

Wheat flour can be fortified with several micronutrients, such as iron, folic acid and other B-complex vitamins, vitamin A and zinc. Some micronutrients are incorporated for restitution of the original nutritional contents of unrefined wheat flour, and others are used for correcting inadequacies and associated deficiencies of public health significance. The bioavailability of the added micronutrients will partially depend on the grain type and the extraction rate of the flour.

PREVIEW

# Fortified wheat flour — Specification

## 1 Scope

This document specifies requirements and methods of test for fortified wheat flour prepared from common wheat (*Triticum aestivum* L.), club wheat (*T. compactum* Host.) or a mixture thereof.

The fortified wheat flour is intended for human consumption.

This document does not cover specification for wheat grain.

## 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.

<b>MS 30</b>	<i>Labelling of prepackaged food</i>
<b>MS 167</b>	<i>Recommended International Code of Practice – General principles of food hygiene</i>
<b>MS ISO 712</b>	<i>Cereals and cereal products – Determination of moisture content – Reference method</i>
<b>MS ISO 7305</b>	<i>Milled cereal products – Determination of fat acidity</i>
<b>ISO 2171</b>	<i>Cereals, pulses and by-products – Determination of ash yield by incineration</i>
<b>ISO 3093</b>	<i>Wheat, rye and their flours, durum wheat and durum wheat semolina – Determination of the falling number according to Hagberg-Perten</i>
<b>ISO 5527</b>	<i>Cereals – Vocabulary</i>
<b>ISO 6639-4</b>	<i>Cereals and pulses – Determination of hidden insect infestation – Part 4: Rapid methods</i>
<b>ISO 16050</b>	<i>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</i>
<b>ISO 20483</b>	<i>Cereals and pulses – Determination of the nitrogen content and calculation of the crude protein content – Kjeldahl method</i>
<b>ISO 24333</b>	<i>Cereals and cereal products – Sampling</i>
<b>CAC/GL 1</b>	<i>General guidelines on claims</i>
<b>CAC/CXG 2</b>	<i>Guidelines on nutrition labelling</i>