

**ICS 67.160.10**

**DMS 1388:2016**  
First edition

**DRAFT MALAWI STANDARD**

**Fortified wine – Specification**

**NOTE – This is a draft proposal and shall neither be used nor regarded as a Malawi standard**

# Fortified wine – Specification

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## FOREWORD

This draft proposal has been prepared by MBS/TC 11, the Technical Committee on *Beverages* to provide requirements for fortified wine.

In preparing this draft Malawi standard reference was made to the following standards:

East African Standard, EAS 139:2013, *Fortified wine – Specification*.

Indian Standard, IS 14398:2005, *Fortified wines – Specification*.

Acknowledgement is made for the use of the above information.

## TECHNICAL COMMITTEE

This draft Malawi standard was prepared by MBS/TC 11, the Technical Committee on *Beverages*, and the following companies, organizations and institutions were represented:

Blantyre Hotels Limited;  
Blantyre Water Board;  
Carlsberg (Malawi) Limited;  
Chibuku Products Limited;  
Consumers Association of Malawi;  
Dairibord Malawi Limited;  
Linga Fine Foods and Winery;  
Malawi Bureau of Standards;  
Mkombezi Wine Cooperatives;  
Peoples Trading Centre; and  
The Malawi Polytechnic (University of Malawi).

## NOTICE

*This draft standard shall be reviewed every five years, or earlier whenever it is necessary, in order to keep abreast of progress. Comments are welcome and shall be considered when the standard is being reviewed.*

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**DRAFT MALAWI STANDARD**

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**Fortified wine – Specification**

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**1 SCOPE**

This draft Malawi standard specifies requirements and methods of sampling and test for fortified wines.

**2 NORMATIVE REFERENCES**

The following standards contain provisions, which through reference in this text, constitute provisions of this Malawi standard. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this standard are encouraged to take steps to ensure the use of the most recent edition of the standard indicated below. Information on current valid national and international standards can be obtained from the Malawi Bureau of Standards.

MS 19: *Labelling of prepacked foods – General standard*;

MS 21: *Food and food processing units – Code of hygienic conditions*;

MS 107: *Alcoholic beverages – Methods of test*;

MS 210: *Spirits – Specification*;

MS 237: *Food additives – General standard*;

MS 302: *Contaminants and toxins in foods – General standard*;

AOAC Official Method 925.35: *Determination of sucrose in fruits and fruit products*;

ISO 4832: *Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coliforms – Colony-count technique*;

ISO 4833-1: *Microbiology of the food chain – Horizontal method for the enumeration of micro-organisms – Part 1: Colony-count at 30 °C – Pour plate technique*; and

ISO 5519: *Fruits, vegetables and derived products – Determination of sorbic acid content*.

**3 TERMS AND DEFINITIONS**

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

**3.1****dry wines**

wines in which practically all the sugar has been converted by fermentation into alcohol to a maximum sugar content of 20 g/l as sucrose

**3.2****fortified wines**

wines or fruit wine in which part of the alcohol is derived from the yeast fermentation of fruits and part from the addition of brandy or neutral spirits

**3.3****medium sweet wine**

wine which contains unfermented sugar in a range of 21 to 90 g/l as sucrose

### **3.4**

#### **red wine**

wine obtained from fruits juice, usually grapes in which the skins, and stems are present during fermentation in order to impart the red colouration arising from anthocyanin pigments extracted by the alcohol being produced

### **3.5**

#### **rose wine**

wine produced by the normal alcoholic fermentation fruits juice, usually grapes, in which the colouring matter of skins and stems are removed before fermentation, yet retaining the pink colouration

### **3.6**

#### **white wine**

wine produced by the normal alcoholic fermentation of fruits juice, usually grapes without the pigment extraction

### **3.7**

#### **wine**

alcoholic beverage obtained by fermentation of fresh or processed fruits or fruit juice (usually grape fruits or grape juice)

### **3.8**

#### **sweet wines**

wines which contain some unfermented sugar to a minimum level of 20 g/l as sucrose

## **4 ESSENTIAL COMPOSITION AND QUALITY FACTORS**

### **4.1 General requirements**

**4.1.1** Fortified wine shall contain at least 60 % of absolute alcohol from base wine.

**4.1.2** Fortified wines, also known as dessert appetizer wines, shall be of two types, namely:

- a) wines which consist of, and owe their characteristic flavour to wholly or partially fermented grapes and distilled spirits
- b) wines which, in addition to deriving their flavour from grapes and distilled spirits, contain and owe their flavour to non-grapes products (for example, aromatic substances, bitter plants) such as vermouths, aperitifs; and wines flavoured with fruits other than grapes.

**4.1.3** Fortified wines shall be made by specialized processes for sherry, port, vermouths, aperitifs or wines flavoured with fruits other than grapes.

**4.1.4** Spirits complying with MS 210 shall be used to fortify the wines.

**4.1.5** White fortified wines shall be pale gold in colour.

**4.1.6** Red fortified wines shall derive the red colour from natural pigments in the grapes or other fruits used. No artificial colour shall be added to amplify the red colour. Addition of any colour to wine is not acceptable. The wine shall derive its colour solely from fruits (grapes).

**4.1.7** Fortified wines shall possess the characteristic taste and aroma associated with the type of wine.

**4.1.8** Fortified wines shall be free from sediments and suspended matter, and shall be clear.

**4.1.9** Fortified wines shall be so produced, as to prevent spoilage during storage under normal conditions.

**4.1.10** Fortified wines shall be free from any extraneous ingredients injurious to health.

## 4.2 Specific quality requirements

Fortified wines shall comply with the quality requirements of Table 1.

**Table 1 – Quality requirements for fortified wine**

S/N	Characteristic	Requirement	Test method
1	Ethyl alcohol content, %	15.5 – 24	MS 107
2	Total solids, g/l	40 – 150	
3	Total acids, as tartaric acid, g/l	4.0 – 10.0	
4	Volatile acids, as acetic acid, g/l, max.	1.0	
5	Total sugar, as sucrose, g/l		AOAC 925.35
	Dry wine	≤ 20	
	Medium sweet wine	21 – 90	
	Sweet wine	91 – 200	
6	pH	3.0 – 4.0	MS 107
7	Sorbic acid, mg/kg, max.	1000	ISO 5519
8	Free sulfur dioxide, mg/kg, max.	30	MS 107
9	Total sulfur dioxide, mg/kg, max.	250	

4.3 Fortified wine shall comply with limits for micro-organisms specified in Table 2.

**Table 2 – Microbiological limits for fortified wine**

1	2	3	4
S/N	Organism	Limit	Test method
1	Coliforms, cfu/ml	0	ISO 4832
2	Total plate count, cfu/ml, max.	100	ISO 4833-1

## 5 FOOD ADDITIVES

The food additives complying with MS 237 may be used in the production of fortified wines.

## 6 CONTAMINANTS

### 6.1 Heavy metals

The products covered by this standard shall comply with the maximum levels of heavy metals and toxic substances prescribed in MS 302.

### 6.2 Pesticide residues

Fortified wine shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this product.

## **7 HYGIENE**

The product covered by the provisions of this draft standard shall be prepared and handled in accordance with the requirements set out in MS 21.

## **8 PACKAGING AND LABELLING**

### **8.1 Packaging requirements**

Fortified wine shall be filled in suitable containers, which does not affect their quality. The containers shall be properly sealed.

### **8.2 Labelling requirements**

In addition to the requirements of MS 19, the following specific provisions shall apply:

- a) Common name as 'fortified wine' preceded by the fruit name where the wine is produced from fruit other than grape;
- b) Name, physical location and address of manufacturer;
- c) Ethyl alcohol content, % by volume;
- d) The net contents shall be declared by volume in millilitres or litres;
- e) List of ingredients in descending order of proportion by mass;
- f) Date of manufacture;
- g) Batch identification number/code;
- h) Country of origin; and
- i) Statutory warnings.

## **9 SAMPLING AND METHODS OF TEST**

**9.1** The products covered by the provisions of this draft standard shall be sampled as prescribed in MS 107.

**9.2** The product shall be tested using appropriate standard methods declared in this draft standard.

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**THE MALAWI BUREAU OF STANDARDS**

The Malawi Bureau of Standards is the standardizing body in Malawi under the aegis of the Ministry of Industry and Trade. Set up in 1972 by the Malawi Bureau of Standards Act (Cap: 51:02), the Bureau is a parastatal body whose activities aim at formulating and promoting the general adoption of standards relating to structures, commodities, materials, practices, operations and from time to time revise, alter and amend the same to incorporate advanced technology.

**CERTIFICATION MARK SCHEME**

To bring the advantages of standardization within the reach of the common consumer, the Bureau operates a Certification Mark Scheme. Under this scheme, manufacturers who produce goods that conform to national standards are granted permits to use the Bureau's "Mark of Quality" depicted below on their products. This Mark gives confidence to the consumer of the commodity's reliability.

