



DRAFT TANZANIA STANDARD

Minced meat products – Specification – Part 1: Beef for burger, kebab, meat ball and meat loaf

DRAFT STANDARD FOR PUBLIC COMMENTS

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0 FOREWORDS

Beef for burger, kebab, meat ball and meat loaf are warm, chilled, frozen minced beef which has had foodstuffs, seasonings or additives added to it.

This draft Tanzania standard has been prepared to ensure that beef for burger, kebab, meat ball and meat loaf manufactured or imported in the country meet the safety and quality requirements intended for human consumption.

In the preparation of this Tanzania standard assistance was drawn from TZS 997/EAS: 2019 Meat grades and meat cuts — Specification — Part 1: Beef grades and cuts published by the Tanzania Bureau of Standards.

In reporting, the results of a test or analysis made in accordance with this standard, if the final value observed or calculated, is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2).

1 Scope

This draft Tanzania standard prescribes the requirements, sampling and test methods for minced beef intended in making beef burger, kebab, meat ball and meat loaf.

2 NORMATIVE REFERENCES

For the purpose of this finalized Tanzania standard, the following references shall apply. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

TZS 789/EAS 12, *Potable water — Specification*

TZS 4, Rounding off numerical values.

TZS 109, Food processing units – Code of hygiene.

TZS 118/ISO 4833, Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of microorganisms – Colony-count technique at 30 °C.

TZS 122/ISO 6579-1, Microbiology of food and feeding stuffs – Horizontal method for detection of *Salmonella* spp.

TZS 123 /ISO 7937, Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of *Clostridium perfringens* – Colony-count technique.

TZS 125 – 1/ISO 6888-1, Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species) – Part 1: Technique using Baird-Parker agar medium – Amendment 1: Inclusion of precision data

TZS 457:2020 Code of hygienic practices for spices and dried aromatic plants
TZS 458:2016 Code of hygiene for meat processing plant
TZS 538, Labelling of pre-packaged foods — General requirements
TZS 731/ISO 7251, Microbiology of food and feeding-stuffs – Horizontal method for the detection and enumeration of presumptive *Escherichia Coli* – Most Probable Number Technique
TZS 852-1/ISO 11290-1, Microbiology of food and animal feeding stuffs – Horizontal method for the detection and enumeration of *Listeria monocytogenes* – Part 1 – Detection method
TZS 997/EAS 84-1, Meat grades and meat cuts — Specification — Part 1: Beef grades and cuts
ISO 17604, Microbiology of the food chain – Carcass sampling for microbiology analysis
ISO 10272-1, Microbiology of food and animal feeding stuffs – Horizontal method for detection and enumeration of *Campylobacter spp.* – Part 1: Detection method
Codex Stan 192, *General standard for food additives*
Codex Stan 193, Codex general standard for contaminants and toxins in food and feed.
TZS 2841/ISO 2917, Meat and meat products – measurement of pH – preference method
TZS 1761:2016/ISO 1443:1973 Meat and meat products – Determination of total fat content

3 Terms and definitions

For the purpose of this standard, the following terms and definitions shall apply:

3.1 meat

parts of an animal that are intended for or have been judged as safe and suitable for human consumption

3.2 fresh meat

meat that has not been subjected to any preserving process other than chilling, freezing, vacuum-wrapping and wrapping in a controlled atmosphere

3.3 minced meat

boneless meat that has been reduced into fragments/particles

3.4 beef for burger, kebab, meat ball and meat loaf

Fresh (warm, chilled or frozen) minced beef which has had foodstuffs, seasonings or additives added to it.

3.5 meat products

products resulting from the processing of meat or from the further processing of such processed products, so that the cut surface shows that the product no longer has the characteristics of fresh meat

3.6 food grade material

materials that are free from substances that are hazardous to human health and may be permitted to come in contact with food

4 Requirements

4.1 General requirements

4.1.1 Raw materials

- Beef shall be derived from healthy animal slaughtered and processed in approved facilities that shall comply with the requirements specified in TZS 458.
- Minced beef shall be made from beef meat flesh. All meat, used to produce minced meat shall meet the requirements for fresh meat TZS 997.
- Minced beef shall be free from objectionable odours, fecal contamination, and foreign matters which may be harmful to consumers.

4.1.2 Beef for burger, kebab, meat ball and meat loaf shall be;

- coarse mixture.
- of characteristic aroma and taste.
- free from any evidence of deterioration, discoloration or any slimy appearance on storage.

4.1.3 Storage and transportation of beef for burger, kebab, meat ball and meat loaf

- Products shall be kept in cold storage (chilled (1 – 4 °C) or frozen below -18°C).
- Storage time shall not exceed 12 months for frozen products at -18 °C.
- Vehicle(s) for products transport shall be equipped with cooling unit in the storage area at all time.

4.2 Ingredients

- Spices and condiments.
- Portable water complying with TZS 789.
- Binder and extenders.
- Permitted additive as per Codex Stan 192.

4.3 Specific Requirements

Beef for burger, kebab, meat ball and meat loaf shall comply with specific requirements stipulated in Table 1.

Table 1: Specific requirements for beef for burger, kebab, meat ball and meat loaf

S/N	Characteristics	Requirements	Method of tests
1	Acid insoluble ash %m/m, max	1.5	TZS 34-1
2	Fat contents %, m/m, max	30	TZS 1761

5 Hygiene

5.1 Product shall be produced, processed, packed, stored, transported and handled under good hygienic conditions according to TZS 458 (see clause 2) and TZS 109 (see clause 2) to prevent contamination that may be harmful to consumer.

5.2 Product shall be free from pathogenic organisms and shall comply with the microbiological limits provided in Table 2 when determined by the methods shown alongside the Table.

Table 2 Microbiological limits for beef for burger, kebab, meat ball and meat loaf

S/No.	Microorganism	Limits, Max.	Test method
i	Total plate count, cfu/g	10 ⁵	TZS 118
ii	<i>Staphylococcus aureas</i> , cfu/g	10 ³	TZS 125 – 1
iii	<i>Escherichia coli</i> , cfu/g	10 ²	TZS 730-2
iv	<i>Escherichia coli</i> 0157:H7 per 25 g	Absent	TZS 730-3
v	<i>Salmonella</i> spp, per 25 g	Absent	TZS 122
vi	<i>Clostridium perfringes</i>	Absent	TZS 123
vii	<i>Listeria monocytogens</i> , per 25 g,	Absent	TZS 852-1
viii	<i>Campylobacter</i> spp. per 25 g	Absent	ISO 10272-1

6 Contaminants

6.1 Heavy metals

Product shall not contain any heavy metal in excess of the quantities specified in Table 3.

Table 3 — Maximum limits of heavy metals of beef for burger, kebab, meat ball and meat loaf

S/No.	Heavy metals	Maximum limits ppm	Test method
i	Arsenic (As)	0.1	TZS 76

ii	Lead (Pb)	0.1	TZS 268
iii	Cadmium (Cd)	0.03	AOAC 973:34
iv	Mercury (Hg)	0.01	AOAC 971: 21

6.2 Pesticides and veterinary drug residues

The maximum residual limits (MRLs) for pesticides and veterinary drug residues in product shall be as prescribed by Codex Alimentarius Commission.

7 Sampling and method of tests

7.1 Sampling

Sampling of product shall be done in accordance with ISO 17604.

7.2 Methods of tests

Samples of product shall be tested to ascertain conformity of the product to the requirements of each specification by the methods described in the respective standards provided under Table 1, 2 and 3 of this standard.

8 Packaging, marking and labeling

8.1 Packing

- Product shall be packed in clean permitted food grade materials. The package shall be sealed tightly and not be exposed to direct sunlight or rain.
- All packaging materials shall be durable during transportation. The materials shall not be torn or broken when keeping in low temperature and shall prevent product from absorbing objectionable odors from the environment.

8.2 Marking and labeling

The container shall be marked and labeled in accordance with TZS 538 (see clause 2). In addition, each container of product shall be legibly and indelibly marked with the following information:

- a) Name of the product shall be beef for burger/kebab/meat ball/meat loaf;
- b) Name and address of the manufacturer/packer;
- c) Batch or code number;
- d) Net weight in metric units;
- e) Date of production;
- f) Expiry date;
- g) Storage conditions;
- h) Country of origin;
- i) List of ingredients in ascending order.

9.3 The container may also be marked with TBS Certification Mark.

NOTE – The TBS Standards Mark of Quality may be used by the manufacturers only under licence from TBS. Particulars of conditions under which the licenses are granted may be obtained from TBS.

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