



## **TANZANIA STANDARD**

---

### **Bamboo drinking straw — Specification**

Draft Standard for Comments Only

**TANZANIA BUREAU OF STANDARDS**

---

## 0 Foreword

This draft Tanzania Standard was developed under the direction of Stationery and Paper Products Technical Committee under supervision of the Chemical Division Standards Committee and it is in accordance with the procedures of Tanzania Bureau of Standards.

This draft Tanzania Standard is the first edition for bamboo drinking straws. It lays down the essential requirements to which such straw must conform.

In the preparation of this Tanzania Standard assistance was drawn from:

GS 218: Plastics - Specification for plastic drinking straw, published by Ghana Bureau of Standards

CD/K/09/2018- EAS- Paper and board food contact material – Specification

The assistance obtained from the above source is hereby acknowledged with thanks.

In reporting the results of analysis of a test if the final value is to be rounded off, it shall be done in accordance with TZS 4, Rounding off numerical values.

---

**DRAFT TANZANIA STANDARD**

---

---

**CDC 10 (443) DTZS**

---

**Bamboo drinking straw- Specification****1 Scope**

This Draft Tanzania Standard specifies the requirements, methods of sampling and test for bamboo drinking straws. It applies to naturally grown bamboo species.

**2 Normative references**

The following referenced documents are indispensable for the application of this Tanzania Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

*TZS 83: -ISO 287; Paper and board — Determination of moisture content of a lot — Oven-drying method*

*TZS 118 /ISO 4833, Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Colony-count technique at 30 °C*

*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*

*TZS 730-1: 2020 / ISO 16649-1:2018 Colony count technique at 44 °C using membranes and 5-Bromo-4-Chloro-3-Indolyl b-D-glucuronide*

*ISO 4046: Paper, board, pulps and related terms- Vocabulary*

*ISO 8784-1, Pulp, paper and board — Microbiological examination — Part 1: Total count of bacteria, yeast, mould based on disintegration*

*ISO 13302, Sensory analysis — Methods for assessing modifications to the flavour of foodstuffs due to packaging*

*ISO 13914, Soil quality — Determination of dioxins and furans and dioxin-like polychlorinated biphenyls by gas chromatography with high-resolution mass selective detection (GC/HRMS)*

**3 Terms and definitions**

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

**3.1 defective**

pack of bamboo drinking straws that fails in one or more respects to comply with the requirements of this specification

**3.2 drinking straw**

drinking straw is a prepared small pipe or tube used to suck a beverage out of a container. A straw may be made of a thin tube of paper, bamboo, stainless steel, plastic or other material is used by placing one end in the mouth and the other in the beverage

**3.3 bamboo drinking straw**

drinking straw made entirely from natural bamboo plant

### 3.4 nominal thickness

theoretical desired thickness of a bamboo drinking straw

### 3.7 lot

aggregate of drinking straws of a single kind of specified characteristics produced under conditions that are presumed uniform and available for inspection at one time

## 4 Requirements

### 4.1 General requirements

**4.1.1** The material used for the manufacturing of the bamboo drinking straws shall be from naturally grown bamboo plant.

**4.1.2** Bamboo drinking straw shall not affect the organoleptic qualities of the food that it comes in contact with.

**4.1.3** Bamboo drinking straw shall be free from any chemical additives and grown free from agricultural chemical residues.

#### 4.1.4

The bamboo drinking straw shall have smooth surface, be free from surface holes, dirt, dust and off odours.

### 4.2 Specific requirements

#### 4.2.1 Moisture content

The moisture content of drinking straws shall be below 15%.

#### 4.2.3 Dimensional requirements

##### 4.2.3.1 Length

**4.2.3.1.1** The length of the drinking straw shall be as agreed between the customer and the manufacturer. The tolerances on the length shall be  $\pm 3$  mm.

**4.2.3.1.2** The length of long drinking straw shall be 200 to 220 mm or as agreed between the customer and the manufacturer.

**4.2.3.1.3** The length of short drinking straw shall be 110 to 120 mm or as agreed between the customer and the manufacturer.

##### 4.2.3.2 Thickness

The thickness of the drinking straw shall be measured at four points using a suitable linear measuring gauge to the nearest 0.01 mm and shall be between 1 to 3 mm. The lowest of the four measurements shall not be less than 0.2 mm.

##### 4.2.3.2.2

##### 4.2.3.3 Outer diameter

When the outside diameter of the drinking straw is determined by using a suitable gauge, it shall lie within the range of 3.0 mm – 10 mm for long and short drinking straws.

## 4.2.4 Microbiological examination

**4.2.4.1** When the bamboo straw is tested in accordance with clause 4.2 it shall comply with microbiological limits given in table 1.

**Table 1 –microbiological limits**

S/N	Characteristic	Limit	Test method
i)	Total aerobic plate count, cfu/g, max.	$10^2$	TZS 118
ii)	<i>Faecal coliforms E. coli</i> , cfu/g	Absent	TZS 730
iii)	<i>Staphylococcus aureus</i> , cfu/g	Absent	TZS 125
iv)	<i>Salmonella spp.</i> , per 25 g	Absent	TZS 125

## 5 Packaging and marking

### 5.1 Packing

The drinking straws shall be packed in a suitable package that withstands normal handling and transportation. and that will prevent damage to the product.

### 5.2 Marking

**Each package shall be indelibly and legibly marked with the following information:**

- name and physical address or registered trademark of the manufacturer;
- batch code;
- name of product;
- country of origin,
- size of the straw,
- name of all additives and processing aids used.
- instruction of use
- number of straws per pack

## 6 Sampling

### 6.1 Scale of sampling

**6.1.1** Tests for determining the conformity of a lot to the requirements of the specification shall be done on each lot separately. The number of package shall be selected at random and shall be in accordance with table 1.

**6.1.2** From each outer package (see 6.1.1) select at random the number of the straws in accordance with table 2.

**Table 2 – Scale of sampling**

Number of package in the lot	Number of package to be selected	Number of straws to be selected
Up to 10	1	10
11 to 50	2	15
More than 50	3	20

Draft Standard for Comments Only