



CDC10 (4308) DTZS

ICS 85.080.01

DRAFT TANZANIA STANDARD

Kraft liner board - specification

TANZANIA BUREAU OF STANDARDS

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Foreword

This Tanzania Standard was published under the authority of the Board of Director of Tanzania Bureau of Standards.

Tanzania Bureau of Standards (TBS) is the statutory national standards body for Tanzania established by the Standards Act Cap. 130.

Tanzania Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. The Technical Committees work under the supervision of Divisional (sectoral) Committees. The Standards are developed in accordance with the Guide and Procedure for Development of Tanzania Standards and TZS 0, *Guide for presentation of Tanzania Standards*.

Tanzania Standards are subject to review, to keep pace with science and technological advances. Users of the Tanzania Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

This Tanzania Standard was developed under the supervision of the Chemical Divisional Standards Committee (CDC). The Technical Committee responsible for the standard is [CDC10]- Paper and Stationery Products.

The reporting of the results of a test or analysis made in accordance with this Tanzania Standard, if the final value, observed or calculated is to be rounded off, shall be done in accordance with TZS 4.

Kraft liner board - specification

1 Scope

This draft Tanzania Standard specifies the requirements, sampling and test methods of Kraft liner board.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.”

TZS 4: Rounding off numerical value

TZS 79: Paper – Determination for bursting strength

TZS 81: Method for the determination of grammage (basic mass)

TZS 80: Paper – Sampling methods for testing

TZS 82: -ISO 187, Paper board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples

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

TZS 423: -ISO 535: Paper and board — Determination of water absorptiveness- cobb method

TZS 747: - ISO 1974, Paper — Determination of tearing resistance — Elmendorf method

TZS 891: -ISO 534; Paper and board — Determination of thickness, density and specific volume

ISO 5636-5: Paper and board – Determination of air permeance (medium range)- Part 5 (Gurley Method)

ISO 6588-1: Paper, board and pulps — Determination of pH of aqueous extracts — Part 1: Cold extraction

ISO 12192: Paper and Board - Determination of compressive strength – Ring Crush method

ISO 9895: Paper and Board- Compressive strength – Short Span Test

3 Terms and definitions

For the purpose of this draft Tanzania Standard the following definitions shall apply:

3.1 bursting strength

maximum uniformly distributed pressure, applied at right angles to its surface, that a test piece of paper or board will stand, under specified test conditions.

3.2 cross direction (CD)

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direction in the paper that is at right angles to the machine direction.

3.3

defective

set of test pieces that fails in one or more respects to comply with the relevant requirements of the standard.

3.4

grammage (substance)

the mass of unit area of paper or board determined by the specified method of test and expressed in grams per square meter and conditioned in accordance with TZS 82/ISO 187.

3.5

nominal grammage (substance)

the value of the mass per unit area used for reference purposes (i.e. when purchasing material)

3.6

actual grammage (substance)

the value of the mass per unit area determined by testing

3.7

Kraft liner board

any liner made almost entirely from kraft pulp.

3.8

Liner

any paper or paper board intended for covering another paper or paper board material to become part of finished product.

3.9

long grain

orientation when the machine direction of the paper is in the long direction of the sheet.

3.10

lot

one or more nominally identical package of paper, the paper having been made on the same equipment under essentially the same conditions, from one manufacturer, and submitted at any one time for inspection and testing.

3.11

machine direction (MD)

direction in a paper or a board parallel to the direction of travel of the web on the paper or board machine.

3.12

wood-free paper or board

paper or board having in principle only chemical pulp in its fibre composition; in practice, however, it may contain a small amount of other virgin pulps less than five percent (< 5%).

3.13

scuffing

become marked by scrapping or brushing

4. Requirement

4.1 General Requirements

4.1.1 Kraft liner board shall be made from 100 % bleached or unbleached sulphate pulp, or combination of any other material that will ensure compliance with the requirements given in Table 1. It is known as virgin Kraft liner board.

4.1.2 The surface shall be machine glazed (MG) or machine finished (MF). The surface should also be receptive to printing. Shall be resistant to scuffing.

4.1.3 The papers shall be free from fibre bundles, tears, shives, foreign matter, specks, holes, blemishes, creases and other visible defects and shall be uniform in texture.

4.1.4 The surface of the paper shall accept the adhesives commonly used in the manufacture of corrugated board.

4.2 Specific Requirements

4.2.1 Kraft liner board shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein

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Table 1 — Specific requirements for Kraft liner board

S/No.	Characteristics	Requirements															Test method
i.	Grammage, g/m ² , ± 5 %	100	110	120	130	140	150	175	200	225	250	275	300	400	425	450	TZS 81
ii.	Moisture content, %, m/m	6 - 8															TZS 83
iii.	pH, min	5															ISO 6588-1
iv.	R.C.T, KN/m, CD, min	0.80	0.90	1.05	1.12	1.35	1.51	1.77	1.97	2.00	2.10	2.30	2.50	2.70	2.90	3.10	ISO 12192
v.	S.C.T, KN/m, CD, min	1.80	1.90	2.14	2.14	2.38	2.55	2.90	3.10	3.20	3.40	3.60	3.80	4.00	4.20	4.40	ISO 9895
vi.	Bulk, cc/g	1.35 - 1.70															TZS 891
vii.	Burst Strength, KPa, min	350	385	420	455	490	525	613	700	788	875	973	1050	1400	1488	1575	TZS 79
viii.	Burst Index, KPa.m ² /g, Dry, min	3.5															
ix.	Burst Index, KPa.m ² /g, Wet, min	1.3															
x.	Cobb 60 seconds, g/m ² , 27°C, Top side, max	30															TZS 423
xi.	Cobb 60 seconds, g/m ² , 27°C, Wire side, max	40															

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4.2.2 Kraft liner board Intended to Come into Contact with food shall comply with TZS 2569/ EAS 930.

5 Dimensions and joints

5.1 The size of the rolls or sheets form shall be as agreed between the purchaser and the supplier. The permissible tolerance on the size shall be in accordance with clause 4 of TZS 63.

5.2 Joints shall be joined properly using a suitable adhesive. A suitable, nontoxic and environmentally friendly adhesive shall be used and shall be adequately resistant to moisture and climatic conditions. There shall be not more than three joints in a roll.

6. Packaging

6.1 Packaging will vary according to the roll's diameter and width as agreed between the purchaser and the supplier.

6.2 Kraft liner board shall be packaged in suitable material that protects it from dust, moisture and dirt during transportation, storage and normal use.

7. Labelling

Each roll shall be legibly and indelibly labelled with the following information:

- a) name of the product
- b) grammage
- c) batch number or code number;
- d) machine direction;
- e) date of manufacture;
- f) diameter and width of roll;
- g) gross weight in kilogramme
- h) country of origin
- i) manufacturers name and physical address

8. Sampling

Sampling methods shall be done in accordance with **TZS 80**.

