



## DRAFT TANZANIA STANDARD

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PVC edge banding – Specification

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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 Chemicals Divisional Standards Committee [CDC]. The Technical Committee responsible for the standard is CDC 11 – Plastics and plastic products.



## PVC edge banding- Specification

### 1 Scope

This Draft Tanzania Standard specifies the requirements, sampling and test methods for polyvinyl chloride (PVC) edge banding used in furniture and interior applications.

### 2 Normative references

The following referenced documents are indispensable for the application 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.

TZS 4055/EAS 1086 Plastics – Codes for resin identification on plastic products

ISO 306: Plastics – Thermoplastic materials – Determination of Vicat softening temperature

ISO 4892-2: Plastics – Exposure to laboratory light sources – Xenon-arc lamps

ISO 868: Plastics and ebonite – Determination of indentation hardness by means of a durometer (Shore hardness)

ISO 527-3 — Plastics — Determination of tensile properties — Films and sheets

ISO 178 — Plastics — Determination of flexural properties

ISO 62 — Plastics — Determination of water absorption

ISO 75-2 — Plastics — Determination of temperature of deflection under load

TZS 2927-3, Specification for plastic materials for food contact applications — Part 3: Colorants

ISO 175, Plastics – Methods of test for the determination of the effects of immersion in liquid chemicals

ISO 8510-2, Adhesives – Peel test for a flexible-bonded-to-rigid test specimen assembly Part 2: 180° peel

ISO 2409 Paints and varnishes – Cross-cut test

ASTM D 3363 Standard test method for film hardness by pencil test

### 3 Terms and definitions

For the purposes of this Draft Tanzania Standard, the following terms and definitions shall apply.

#### 3.1

##### Edge banding

a narrow strip of material applied to the edges of panels for protection and aesthetics.

#### 3.2

##### Adhesion strength

the ability of the PVC edge banding to bond effectively with substrates using adhesives.

#### 3.3

##### Vicat softening temperature

the temperature at which a material starts to soften under a specified load.

### 4 Requirements

#### 4.1 General requirements

4.1.1 PVC resin shall be free from harmful additives

4.1.2 Pigments and colour used shall comply with the list and limits of the pigments and colourants, when tested as according to TZS 2927-3

4.1.3 The surface shall be smooth and clean with uniform texture, no scratches, no puckering, no ruptures and no perforations.

4.2.4 The edge banding shall exhibit strong adhesion with commonly used adhesives such as Ethylene Vinyl Acetate (EVA) and Polyurethane Reactive (PUR).

4.1.5 The edges of the PVC edge banding shall be smooth, tidy and neat.

4.1.6 Colour and gloss shall be consistent.

#### 4.2 Specific requirements

4.2.1 The PVC edge banding shall meet the material requirements given in Table 1

**Table 1 – Requirements for PVC edge banding**

S/N	Characteristic	Requirement	Test Method
1	Tensile strength at break, Min	18 MPa	ISO 527-3
2	Elongation at break, Min	20 %	ISO 527-3
3	Flexural strength, Min	30 MPa	ISO 178
4	Hardness (Shore D)	60 – 75	ISO 868
5	Vicat softening temperature,	70 °C	ISO 306 (Method A, 10 N)

	Min		
6	Heat deflection temperature, Min	60 °C	ISO 75-2
7	Water absorption, Max	1.0 %	ISO 62 (Method 1)
8	Chemical resistance	No cracking, blistering, softening or discoloration	ISO 175
9	Colour fastness to light	≥ Grey scale Grade 3	ISO 4892-2
10	Dimensional stability, Max	2 %	ISO 2796
11	Adhesion to substrate	No delamination or cracking	ISO 8510-2
12	Resistance to scratch, Min	6H	ASTM D 3363

## 4.2.2 Dimensions and Tolerances

### 4.2.1 Dimensions

The dimensions of the PVC edge banding including width, thickness and length shall be as agreed between customer and manufacturer.

### 4.2.2 Tolerances

When tested in accordance with Annex C, width tolerance of  $\pm 0.5$  mm and thickness tolerance of  $\pm 0.02$  mm is permitted.

## 4.3 Adhesion of surface coatings

The adhesive of surface coatings on edge banding materials shall be tested in accordance with ISO 2409. The coating shall have an adhesive classification not worse than grade 2, unless otherwise specified between the manufacturer and the customer.

## 5 Packaging

The PVC edge banding shall be packed as agreed between purchaser and manufacturer.

## 6 Marking and labelling

### 6.1 Marking

Each PVC edge banding shall be legibly and permanently marked with the following information:

- a) Code of resin identification and symbol for recycling in accordance with TZS 4055/EAS 1086;
- b) Name of the manufacturer and/or trademark;
- c) Month and year of manufacturing

- d) Batch or code number; and
- e) Country of origin
- f) Instruction for use, safety and disposal

## 6.2 Labelling of package

6.2.1 The package shall contain PVC edge banding of the same size.

6.2.2 The package shall be legibly and indelibly labelled in English and/or Swahili.

- a) Name and physical address of manufacturer and/or registered trademark;
- b) Name of the product as, "PVC edge banding";
- c) Size of the edge banding;
- d) Number of PVC edge banding in the package;
- e) Batch or code number;
- f) Instruction for storage and disposal; and
- g) Country of origin.

## 7 Sampling

7.1 In any consignment, all edge banding of the same size and same type and belonging to the same batch of manufacture shall be grouped together to constitute a lot.

7.2 For ascertaining conformity of the material to the requirements of this standard, samples shall be tested from each lot separately.

7.3 The number of PVC edge banding to be sampled from a lot shall depend upon the size of the lot and shall be in accordance with Table 2.

**Table 2 — Scale of sampling and permissible number of defectives**

Lot size	Number of PVC edge banding to be selected	Permissible number of defectives
≤ 50	5	0
51 to 100	8	0
101 to 150	13	1
151 to 300	20	2
301 to 500	32	3

501 to 1 000	50	5
$\geq 1\ 001$	80	7

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