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## Leather – Lining - Specification

Draft for Stakeholders comments Only!

TANZANIA BUREAU OF STANDARDS

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## Foreword

This Draft Tanzania Standard is being developed by the Leather and Leather Products Technical Committee under supervision of the Textile and Leather Division Standards Committee and it is in accordance with the procedures of the Bureau.

This Tanzania Standard has been prepared with assistance drawn from:

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*IS 4191, Lining Leather Specification.*

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## 1 Scope

This Draft Tanzania standard prescribes requirements, test methods, and methods of sampling for lining leather.

## 2 Normative references

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

The following referenced documents are indispensable for the application of this document.

*TZS 4 Rounding off numerical values.*

*TZS 188 Hides, skins and leather — glossary of terms.*

*TZS 195, Leather - Chemical tests – Determination of matter soluble in Dichloromethane and free fatty acid content.*

*TZS 197, Leather - Determination of sulphated total ash and sulphated water-insoluble ash.*

*TZS 196, Leather – Determination of total water – soluble matter, water – soluble inorganic matter and water soluble – organic matter.*

*TZS 199 Leather, Determination of pH and difference figure of an aqueous extract.*

*TZS 200, Leather – Determination of nitrogen content and “Hide substance” – Titrimetric method.*

*TZS 205 Leather — Physical testing — Measurement of thickness*

*TZS 211, Leather – Test for colour fastness – Colour fastness to cycles of to and fro rubbing.*

*TZS 3574, Leather — Chemical determination of chromium(VI) content in leather.*

*ISO 3376, Leather — Physical and mechanical tests — Determination of tensile strength and percentage elongation*

*ISO 10195, Leather — Chemical determination of chromium(VI) content in leather — Thermal pre-ageing of leather and determination of hexavalent chromium.*

*ISO 11641, Leather — Tests for colour fastness — Colour fastness to perspiration.*

*ISO 14268, Leather — Physical and mechanical tests — Determination of water vapour permeability.*

*ISO 17070, Leather — Chemical tests — Determination of tetrachlorophenol-, trichlorophenol, dichlorophenol-, monochlorophenol-isomers and pentachlorophenol content.*

*ISO 17076, Leather — Determination of abrasion resistance.*

*ISO 17234, Leather — Chemical tests for the determination of certain azo colorants in dyed leathers.*

*ISO 17226, Leather — Chemical determination of formaldehyde content.*

*ISO 23910, Leather — Physical and mechanical tests — Measurement of stitch tear resistance.*

### 3 Terms and definitions

For the purpose of this Draft Tanzania Standard, the f terms and definitions are given in TZS 188 (Hides, skins and leather glossary of terms).

### 4 TYPES

**Lining leather shall be of the three types: adopt the format of CD2 – (1945)**

- a) Type 1** — Combination tanned lining leather (combination of vegetable and chrome tanning),
- b) Type 2** — Vegetable tanned lining leather, and
- c) Type 3** — Full chrome tanned lining leather.

### 5 REQUIREMENTS

#### 5.1 Raw Material

The material shall be either light weight hides or skins.

#### 5.2 Tanning

The lining leather shall be prepared by either of the three types of leather lining.

**5.2.1** Preservatives containing pentachlorophenol (PCP) shall not be used and the manufacturer shall give a declaration to this effect along with the consignment.

#### 5.3 Finishing

The leather shall be finished with the flesh side smooth and buffed well. It shall be free from open grub holes, cuts, and open surface blemishes and shall be mellow and yet tight grained.

The leather shall be dyed uniformly and/or finished with pigment subject to agreement between the buyer and the seller.

#### 5.4 Physical and chemical requirements

The material shall comply with the physical requirements and chemical requirements given in Table 1 and Table 2 respectively.

#### 5.5 Hazardous Chemicals

The leather shall conform to the requirements given in Table 3, when tested in accordance with the methods prescribed in column 4 of Table 3.

#### 5.6 Sizes and Shape

The material shall be supplied in the form of trimmed full pieces and free from toggle, punch and nail marks.

NOTE — Care shall be taken in trimming to ensure a minimum wastage and to obtain a reasonable cutting value out of each piece.

**Table 1 – Physical requirements for leather lining**

SN	Parameter	Requirements	Test Method
1	Thickness, min	As agreed between buyer and seller with a tolerance of $\pm 2\%$	TZS 205
2	Tensile strength, MN/m <sup>2</sup> (kgf/cm <sup>2</sup> ), Min	15 (150)	ISO 3376
3	Stitch tear strength/m (kgf/cm) thickness, <i>Min</i>	44	ISO 23910
4	Colour fastness test for finished leather, (contrast grading after 1 024 revolutions), min a) Dry rubbing b) Wet rubbing	4 3	TZS 211
5	Colour fastness to perspiration, min	3	ISO 11641
6	Water vapour permeability, mg/cm <sup>2</sup> /h, <i>Min</i>	2	ISO 14268 TZS
7	Abrasion resistance, <i>Not worse than:</i> a) 25,600 cycles of dry rubs b) 6,400 cycles of wet rubs	Moderate abrasion	ISO 17076

**Table 2 – Chemical requirements for leather lining**

S/N	Parameter	Requirements			Test Method
		Type 1	Type 2	Type 3	
1	Solvent extractable substances, percent by mass, min	3.0	3.0	3.0	TZS 195
2	Chromium (as Cr <sub>2</sub> O <sub>3</sub> ), percent by mass, <i>Max</i>	0.75	-	0.25	TZS 3574
3	Water soluble matter, percent by mass, <i>Max</i>	3.0	10.0	2.0	TZS 196
4	Water insoluble ash, percent by mass, <i>Max:</i>				TZS 197
	a) Pigment finished leather	6.0	5.0	7.0	
	b) Aniline or unfinished leather	2.0	2.0	2.0	
5	pH of water solubles, <i>Min</i>	3.5	4.0	3.5	TZS 199
6	Hide substance, percent by mass, <i>Min</i>	55	40	55	TZS 200

**Table 3 - Restriction on Hazardous Chemicals**

<b>SN</b>	<b>Parameter</b>	<b>Requirements</b>	<b>Test Method</b>
1	Formaldehyde, mg/kg, <i>Max</i>	150	ISO 17226
2	Pentachlorophenolate, mg/kg, <i>Max</i>	5	ISO 17070
3	Coupled amines released from azo-dyes (sum the parameters), mg/kg, <i>Max</i>	30	ISO 17234
4	Hexavalent chromium, mg/kg, <i>Max</i>	3	ISO 10195

## **6 PACKING AND MARKING**

### **6.1 Packing**

The leather shall be packed as agreed to between the buyer and the seller.

### **6.2 Marking**

Each leather at the tail end of the flesh side shall be marked with its area, in dm, and the type. The packages shall be marked with the following information:

- a) Name of the manufacturer, address and/ or trade-mark, if any;
- b) Name and type of leather;
- c) Quantity (number of pieces of leather);
- d) Thickness, *mm*
- e) Total area and mass; and
- f) Month and year of manufacture.