



DRAFT EAST AFRICAN STANDARD

Leather — Finished leather for shoe uppers— Specification.

EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards.

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

The committee responsible for this document is Technical Committee EASC/TC 063, *Leather and leather products*.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

Leather — Finished leather for shoe uppers — Specification.**1 Scope**

This Draft East African Standard specifies requirements, sampling and test methods for finished leather to be used in shoe uppers.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 2418, *Leather — Chemical, physical and mechanical and fastness tests — Sampling location*

ISO 2588, *Leather — Sampling — Number of items for a gross sample*

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

ISO 3377-2, *Leather — Physical and mechanical tests — Determination of tear load — Part 2: Double edge tear*

ISO 3379, *Leather — Determination of distension and strength of surface (Ball burst method)*

ISO 4045, *Leather — Chemical tests — Determination of pH and difference figure*

ISO 4048, *Leather — Chemical tests — Determination of matter soluble in dichloromethane and free fatty acid content*

ISO 5398-1, *Leather — Chemical determination of chromic oxide content — Part 1: Quantification by titration*

ISO 5402-1, *Leather — Determination of flex resistance — Part 1: Flexometer method*

ISO 11640, *Leather — Tests for colour fastness — Colour fastness to cycles of to-and-fro rubbing*

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 17075-1, *Leather — Chemical determination of chromium(VI) content in leather — Part 1: Colorimetric method*

ISO 17075-2, *Leather — Chemical determination of chromium(VI) content in leather — Part 2:*

Chromatographic method

ISO 17226-1, *Leather — Chemical determination of formaldehyde content — Part 1: Method using highperformance liquid chromatography*

ISO 17229, *Leather — Physical and mechanical tests — Determination of water vapour absorption*

ISO 17234-1, *Leather — Chemical tests for the determination of certain azo colourants in dyed leathers — Part 1: Determination of certain aromatic amines derived from azo colourant*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

upper leather

leather for making the upper part of footwear.

3.2

finished leather.

leather which is tanned, fat liquored, dried and given the final surface appearance.

4 Requirements

4.1 General requirements

4.1.1 Finished leather shall be free from defects.

4.1.2 The grain side shall be free from flays and grain defects that affect its appearance.

4.1.3 The flesh side of the leather shall have been shaved and be free from any cuts and loose flesh.

4.1.4 The leather shall be soft, pliable and not be pippy.

4.2 Specific requirements

Finished leather for shoe uppers shall comply with the specific requirements given in Table 1 and table 2 when tested in accordance with the test methods specified therein.

Table 1 — Specific requirements for full chromed finished leather for shoe uppers.

S/N	Characteristic	Requirements	Test method
i.	Tensile strength (MPa), min.	15	ISO 3376
ii.	Elongation at break, (%)	30 – 80	ISO 3376
iii.	Rub fastness (50 cycles), dry /wet, Min	3	ISO 11640
iv.	Colour fastness to perspiration, min	3	ISO 11641
v.	Flex resistance (20,000 cycle), min	No crack	ISO 5402-1
vi.	pH value	4.5 – 5.5	ISO 4045
vii.	Dimensional change, (%), max.	5	ISO 17130
viii.	Light fastness, (blue wool standards), min.	4	ISO 105-B02
ix.	Water vapour permeability, mg/cm ² ·h, min.	0.8	ISO 14268
x.	Water vapour absorption, mg/cm ² , min.	15	ISO 17229
xi.	Distension of grain at crack, mm, min.	7	ISO 3379
xii.	Grain crack load (N), min.	200	ISO 3379
xiii.	<i>Tear strength, N, min</i>	30	ISO 3377
xiv.	<i>Colour fastness to water spotting, min</i>	4	ISO 15700
xv.	<i>Chromium III content (Cr₂O₃), (%), min.</i>	2.5	ISO 5398-1
xvi.	<i>Chromium VI content, (mg/kg), max.</i>	3.0	ISO 17075-1 or ISO 17075-2
xvii.	<i>Formaldehyde content (mg/kg), max.</i>	150	ISO 17226-1

xviii.	Azo colorant (applicable to dyed leather only), mg/kg, max.		30	ISO 17234
xix.	Adhesion of finish, N, min.	Dry	1.0	ISO 11644
		Wet	0.8	

Table 2 — Specific requirements for vegetable tanned finished leather for shoe uppers

S/N	Characteristic	Requirements	Test method
i.	Shrinkage temperature, min	70 ° c	ISO 3380
ii.	Tensile strength N/mm2 , min	25	ISO 3376
iii.	Elongation at break %	30-80	ISO 3376
iv.	Water absorption%, by mass, max, a) in 30 minute, b) in 2 hours, c) in 24 hours,	40 50 55	ISO 2417
v.	Total ash % by mass, max.	3	ISO 4047
vi.	Solvent extractable substance % by mass	3-7	ISO 4048
vii.	Hide substance % by mass,min.	40	ISO 5397
viii.	PH of water soluble aqueous extract, min.	3.5	ISO 4045
ix.	Water soluble matter % by mass, max.	18	
x.	Loss by washing%, max.	8	
xi.	Formaldehyde,mg/kg,max.	150	ISO 17226
xii.	Pentachlorophenate,mg/kg,max.	5	ISO 17070
xiii.	Azo-dyes (sum parameters), mg/kg, max.	30	ISO 17234
xiv.	Hexavalent chromium, mg/kg,max.	3	ISO 17075

5 Packaging

Finished leather shall be packaged in suitable material so as to protect them from humidity, heat and light during transportation, storage and handling.

6 Marking and labelling

6.1 Finished leather for shoe uppers

The following information shall be legibly and indelibly marked/labelled on flesh side of each finished leather for shoe upper:

- a) manufacture's name and/or trademark;
- b) colour;
- c) country of origin;
- d) Area of the leather; and
- e) batch number.

6.2 Bulk package

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

- a) manufacturer's name and/or trademark;
- b) number of finished leather for shoe uppers; and
- c) country of origin.

7 Sampling

Sampling of leathers shall be as specified in ISO 2588. The location of test pieces shall be as specified in ISO 2418.

Bibliography

PUBLIC REVIEW

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