

CES 46

Compulsory Ethiopian Standard

Second Edition
2021

Leather–Wet-blue chrome tanned sheep and calfskins, and goat – Specification



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Foreword

This Ethiopian Standard has been prepared under the direction of the Technical Committee for Raw Hides and Skins, and Tanned Leather (TC 73) and published by the Ethiopian Standards Agency (ESA).

This Compulsory Ethiopian Standard cancels and replaces CES 46:2013.

Application of this standard is COMPULSORY with respect to clauses 4, and 7.

A Compulsory Ethiopian Standard shall have the same meaning, interpretation and application of a "Technical Regulation" as implied in the WTO-TBT Agreement.

Implementation of this standard shall be effective as of 01 October 2013.

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Leather–Wet-blue chrome tanned sheep and calfskins, and goat – Specification

1. Scope

This Ethiopian standard specifies the requirements for wet-blue chrome tanned sheep and calfskins sheep, and. goatskins.

2. Normative references

The following referenced documents are indispensable for the application of this Ethiopian standard. Only the latest edition of the documents (including any amendments) shall be applicable.

ES 1180, Leather - Terminology

ES 1188, Leather - Determination of chromium content as chromic oxide (Cr_2O_3);

ES ISO 11646, Leather – Measurement of area;

ES ISO 4045, Leather -Determination pH;

ES 1195, Leather - Determination of moisture content;

ES ISO 3380, Leather- Determination of shrinkage temperature at the wet-blue stage;

ES ISO: 2418, Leather - Determination of Laboratory samples – location and Identification.;

ES ISO 2419, Leather - Preparation and conditioning of test samples;

ES ISO 4044, Leather – preparation of chemical test samples;

ES ISO 2588, Leather -Sampling – Number of items for a gross sample;

ES ISO 11642, Leather- tests for colour fastness.

3. Definition

For the purpose of this standard the definitions in ES 1180 shall apply.

4. Requirements

4.1 General

The material after chrome tanning shall be treated with suitable fungicides in order to inhibit mould growth in the wet-blue condition when tested in accordance with the method of test specified in ES 1193. Chrome tanning shall be completed above pH of 3.0. On the basis of dry skin mass, the use of 0.05 percent fungicides shall be adequate, when tested according to the method of test to be prepared by the near future.

4.2 Grading of wet-blues chrome tanned skins

4.2.1 Physical and chemical requirements of wet – blue chrome tanned skins

Wet-blue chrome tanned sheep and calfskins, and goatskins shall be graded according to the physical appearance, size and chemical requirements specified in table 1 and table 2 here in.

Identification of major and minor defects:

Major defects: Ekek, hole putrefaction, pox, poor pattern, wound/sears, deep knife cut damage, old animal skins, poor substance, process defects are among others.

Minor defects: Such as scratch, blood stains, gouge mark, wrinkles, pinhole, heat damage, veniness, blood stain, process defects.

Table 1. Physical requirements for grading of wet-blue chrome tanned Sheep and calf skins by defects on appearance

Grade	Useable area by % of total area	Description
I	90 - 100	One minor defect on the skin surface which is likely to depreciate the skin appearing beyond 2.5 cm from the edges.
II	75 - 89	Skins will have not more than three minor defects on the skin surface appearing beyond 2.5 cm from the edges which are likely depreciate the skin.
III	60 - 74	Skins will have not more than three minor defects and one major defect on the skin which are likely depreciate the skin.
IV	45 - 59	Skins will have not more than five minor defects on the skin which are likely depreciate the skin.
V	25 - 44	Skins will have not more than 10 minor defects and two major defects on the skin which are likely depreciate the skin.
Reject	<25	Skins will have major defects throughout the skin surface appearing beyond 2.5 cm which are likely to depreciate the skin.

Table 2. Physical requirements for grading of wet blue chrome tanned goatskins by defect on appearance.

Grade	Useable area by % of total area	Description
I	85-100	These skins will have good substance suitable for good finish. Grain should be free from open defects and heavy pox marks which could show on flesh side. The suede side should have no prominent veins and flay cuts, which could affect the nap. The buff portion of the skin should have no flay cuts.
II	70-84	These skins should have even substance and grain side could have course and small scratch marks and on suede side small or very light vein marks which will no affect the nap. Still on suede side it could have one or two light flay cuts on the peripheries of the skins.
III	55-69	These skins will have even substance and grain side could have open scratches and pox marks which could show upon suede side. On suede side skin could how flay cuts not very deep and vein marks not so prominent and too many not to affect the cutting value.

IV	40-54	These skins will have varied substance and similar skin defect as in Grade III but with this cutting value.
V	25-39	These skins will have pronounced pox marks, open defects gash and scratches shaving on grain and flesh.
Reject	<25	These skins will have a cutting value less than 25%.

Table 3. Chemical and physical requirements for wet – blue chrome tanned leather

Sr. No	Characteristics	Sheep and Calfskins, and goat skins	Method test
1	Chromium as (Cr ₂ O ₃) percent by mass on leather substance, min.	2	ES 1188: 2008
2	pH of water soluble, min	2.8	ES ISO 4045
3	Moisture content, percent by mass,	60 -70	ES 1195:2008
4	Shrinkage temperature °C, min	90	ES ISO 3380

4.2.2 Classification of wet – blue skins by size

Table 5

Origin of skins	Category by size	Skin dm ² per skin	Size in ft ² per skin
Sheep and goat	Extra small	Less than 23	Less than 2.5
	Small	23 – 32	2.5 – 3.5
	Medium	33 – 42	3.6 – 4.5
	Large	43 – 51	4.6- 5.5
	Extra large	above 51	above 5.5

5. Sampling

Sampling of wet-blue chrome tanned leather shall be carried out in according to the methods specified in ESISO 2418, ES ISO 2419 and ISO 2588 and ES ISO 4044.

6. Packing

Wet-blue chrome tanned leather shall be packed in polyethylene plastic bags or wrapped inside and outside with polypropylene bags or wrapped as a bundle or palletize as agreed to between the purchaser and producer.

7. Labeling

Each container of wet-blue chrome tanned skins shall be labeled with the following particulars.

- a) Name and address of the manufacturer;
- b) Country of origin;
- c) The number of pieces and/or total area;
- d) The type and grade;
- e) The total mass, in kg;
- f) Batch or code number; and
- g) Any other labeling information required by the purchaser.

8. Compliance with the Standard.

A lot of wet-blue chrome tanned skin shall be deemed to comply with this Ethiopian standard up on inspection and testing the provision in clause 4, 5, 6 and 7 are satisfied.

Organization and Objectives

The Ethiopian Standards Agency (ESA) is the national standards body of Ethiopia established in 2010 based on regulation No. 193/2010. ESA is established due to the restructuring of Quality and Standards Authority of Ethiopia (QSAE) which was established in 1998.

ESA's objectives are:-

- ❖ Develop Ethiopian standards and establish a system that enable to check whether goods and services are in compliance with the required standards,
- ❖ Facilitate the country's technology transfer through the use of standards,
- ❖ Develop national standards for local products and services so as to make them competitive in the international market.

Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes. Orders for all Ethiopian Standards, International Standard and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed in from our website.

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