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**Leather — Raw cattle hides and calf  
skins —**

Part 2:  
**Guidelines for grading on the basis of  
mass**

*Peaux brutes de bovidés —*

*Partie 2: Lignes directrices pour le classement sur la base de la masse*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html)

This document was prepared by Technical Committee ISO/TC 120, *Leather*, Subcommittee SC 1, *Raw hides and skins including pickled pelts*.

A list of all parts in the ISO 2822 series can be found on the ISO website.

## Introduction

The variation in weight ranges of cattle hides and calf skins prevailing among resource countries when graded based on mass and size is usually far too large to be accommodated in a common standard. This document has been developed as a technical report to serve as a reference.

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# Leather — Raw cattle hides and calf skins —

## Part 2: Guidelines for grading on the basis of mass

### 1 Scope

This document provides guidelines for grading cattle hides and calf skins on the basis of mass. It lists the practices followed in those countries that produce cattle hides and calf skins.

### 2 Normative references

There are no normative references in this document.

### 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:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **baby calf**

small, lightweight skin of mass up to 4,0 kg green weight from a young, milk-fed bovine

#### 3.2

##### **bull hide**

hide from an uncastrated male bovine

Note 1 to entry: Hides from bulls are characterized by thick and rough head, neck and shoulders, and by coarse flanks. Bull hides are often poor in quality and heavy, weighing 27 kg and upwards.

#### 3.3

##### **cattle hide**

outer covering of a fully grown bovine

Note 1 to entry: Conventional hides are those whose mass exceeds the following:

- in Denmark, 12 kg salted weight;
- in France, about 14 kg salted weight;
- in Germany, 14 kg green weight;
- in Italy, about 14 kg salted weight;
- in Spain, 14 kg green weight;
- in Sweden, 11 kg salted weight;
- in the UK, 16 kg green weight;
- in the USA and India, about 7 kg salted weight.

### 3.4

#### **cow calf skin**

skin of a young or immature bovine below a certain weight

Note 1 to entry: Conventionally, this weight is:

- in Denmark, 12 kg salted weight;
- in France, about 14 kg salted weight;
- in Germany, 14 kg green weight;
- in Italy, about 14 kg salted weight;
- in Spain, 14 kg green weight;
- in Sweden, 11 kg salted weight;
- in the UK, 16 kg green weight;
- in the USA and India, about 7 kg salted weight.

### 3.5

#### **cow hide**

hide of a female bovine which has the spread, pattern and characteristics of having borne calves

### 3.6

#### **dried hide**

hide cured by drying under shade

### 3.7

#### **dried skin**

skin cured by drying under shade

### 3.8

#### **dry salted hide**

hide cured by treating with salt

EXAMPLE By sprinkling with solid salt or immersing in brine and then drying out.

### 3.9

#### **dry salted skin**

skin cured by treating with salt

EXAMPLE By sprinkling with solid salt or immersing in brine and then drying out.

### 3.10

#### **green hide**

cattle hide after dissipation of normal body heat, trimmed and defatted as appropriate with allowances made for moisture, dung and/or other extraneous material, and before treatment with sodium chloride or other chemical or natural curative agent or process

### 3.11

#### **green skin**

calf skin after dissipation of normal body heat, trimmed and defatted as appropriate with allowances made for moisture, dung and/or other extraneous material, and before treatment with sodium chloride or other chemical or natural curative agent or process

### 3.12

#### **ox hide**

bovine hide, other than a *baby calf* (3.1), *bull hide* (3.2), *cattle hide* (3.3) or *cow calf skin* (3.4), being either a female lacking the spread, pattern and characteristics of having borne calves, or a male that is not a bull

**3.13****veal skin**

skin of an immature bovine which, after weaning, has not been fed on grass but on a milk diet and has been allowed to grow comparatively large, yielding a skin thicker and heavier than a calfskin

**3.14****wet salted hide**

hide cured by treating with solid salt on the flesh side

**3.15****wet salted skin**

skin cured by treating with solid salt on the flesh side

**4 Trimming****4.1 Cattle hides**

Before being classified by weight, foreshanks should be knee-trimmed, hindshanks trimmed square at the hock and removed from the rump and brisker, the butt fairly shaped, and horns, tailbones and head meat removed. Heads should be trimmed by removing the mask (pates), ears and lips, leaving only the cheeks. Tails should be trimmed to not more than 300 mm.

If the cheek of a hide bears a cut of more than 80 mm in length, the portion of the cheek beyond the cut should be removed by continuing the cut in both directions.

**4.2 Calf skins**

Before being classified by weight, shanks should be trimmed short, tailbones should be removed and the skin should be without head, i.e. cut off behind the ears and without cheeks.

Reference may also be made to ISO 2820, which provides an optimum method of trimming.

**5 Determination of mass****5.1 Raw hides and skins**

Weigh raw cattle hides to the nearest 0,5 kg and raw calf skins to the nearest 0,1 kg. Allowances should be made for dung and flesh left on the hide or skin.

**5.2 Wet salted hides and skins**

Open each hide or skin to be weighed. Shake it violently by hitting the flesh side and grain side one time each against the rectangular support, 300–400 mm high. Remove leftover salt by brushing. Weigh wet salted cattle hides to the nearest 0,5 kg and wet salted calf skins to the nearest 0,1 kg.

NOTE Any mechanical methods of desalting can be utilized for the purpose.

**5.3 Dry salted hides and skins**

Open each hide or skin to be weighed. Shake it to remove any extraneous matter. Weigh dry salted cattle hides and calf skins to the nearest 0,1 kg.

**5.4 Dried hides and skins**

Open each hide or skin to be weighed. Shake it to remove any extraneous matter. Weigh dried cattle hides and calf skins to the nearest 0,1 kg.

## 6 Classification of hides and skins in different countries

### 6.1 Germany

Table 1 — Classification based on green weight

Animal type	Weight (kg)
Heifers, cows, oxen and bulls	Up to 14,5
	15,0–19,5
	20,0–24,5
	25,0–29,5
	30,0–39,5
	40,0–49,5
	50,0–59,5
	60,0 plus
Calves	Up to 4,5
	5,0–7,5
	8,0–10,0
	10,5–14,50

Size: 1 kg of raw material would measure approximately 0,09 m<sup>2</sup> (1 ft<sup>2</sup>).

### 6.2 North America

Table 2 — Classification based on salted weight

Animal type	Weight (kg)
<b>Cow and bull hides</b>	
Light native	13,5–25,0
Heavy native	25,5 above
Branded	13,5 and above
<b>Steer hides</b>	
Ex-light native	13,5–22,0
Light native	22,5–26,0
Heavy native	26,5 and above
Calves and skins of cow, bull and steer	1,5–1,8
	1,9–2,2
	2,3–3,2
	3,3–4,0
	4,1–5,5
	5,6–7,5
	7,6–11,5
	11,6–13,5

Size: 1 kg of raw material would measure approximately 0,11 m<sup>2</sup> (1,2 ft<sup>2</sup>).

### 6.3 South America

**Table 3 — Classification based on salted weight**

Animal type	Weight (kg)
Mamones (milk calves)	Under 3,5
Terberos (yearlings)	4,0-7,0
Becerros (calves)	7,5-11,5
Vaquillonas (light cows)	Up to 18,0
Vacas (cows)	18,5 plus
Novillitos (light oxen)	17,0-23,0
Novillos (oxen)	22,0 plus
Toros (bulls)	18,0 plus

Size: 1 kg of raw material would measure 0,13 m<sup>2</sup> (1,4 ft<sup>2</sup>).

### 6.4 North Africa

**Table 4 — Classification based on salted weight**

Animal type	Weight (kg)
Calf skins	1,0-6,0
Grassers	6,5-12,0
Hides	12,5-20,0
	20,5-24,0
	24,5 plus

Size: 1 kg of raw material would measure 0,14-0,15 m<sup>2</sup> (1,5-1,6 ft<sup>2</sup>).

### 6.5 South Africa

**Table 5 — Classification based on air-dried material**

Animal type	Weight (kg)
Calf skins	Up to 2,5
Hides	3,0-5,5
	6,0-7,5
	8,0-9,0

Size: 1 kg of raw material would measure 0,28-0,30 m<sup>2</sup> (3,0-3,2 ft<sup>2</sup>).

## 6.6 West Africa

Table 6 — Classification based on dried weight

Animal type	Weight (kg)
Calves	Up to 1,8
Hides	2,3-3,2
	3,7-5,5
	6,0-7,2
	7,7-10,0
	10,5 and above

Size: 1 kg of raw material would measure 0,30-0,32 m<sup>2</sup> (3,2-3,4 ft<sup>2</sup>).

## 6.7 East Africa

Table 7 — Classification based on dried weight and salted weight

Animal type	Weight (kg)	
	Dried	Salted
Cattle and calf skins	Up to 1,8	5,5-11,0
	2,3-3,2	11,5-20,0
	3,7-5,5	20,5-25,0

Size: 1 kg of dried material would measure 0,30-0,32 m<sup>2</sup> (3,2-3,4 ft<sup>2</sup>). 1 kg of salted material would measure 0,14-0,148 m<sup>2</sup> (1,5-1,6 ft<sup>2</sup>).

## 6.8 China

Table 8 — Classification based on dried weight

Animal type	Weight (kg)
Cow hides (Hankow)	2,5
	3,0-4,5
	5,0-6,5
	7,0-9,0
	9,5-13,5
	14,0 and above
Cow hides (Canton)	4,5
	5,0-6,5
	7,0-9,0
	9,5-11,0
	11,5-13,5
	14,0 and above

Size: 1 kg of raw material would measure 0,30-0,33 m<sup>2</sup> (3,2-3,6 ft<sup>2</sup>).

## 6.9 India and Pakistan

Table 9 — Classification based on wet salted, dry salted and dried weights

Animal type	Weight (kg)		
	Wet salted	Dry salted	Dried
Baby calves	3,0–5,0	1,5–3,0	1,2–2,0
Calf skins	5,1–6,0	3,1–3,5	2,1–2,5
Light	6,5–8,0	3,6–5,0	2,6–3,0
Medium	8,5–12,0	5,5–7,0	3,1–5,0
Heavy	12,5–15,0	7,5–9,0	5,1–6,0
Extra heavy	15,5 and above	9,5 and above	6,1 and above

Size: 1 kg of wet salted material would measure 0,14 m<sup>2</sup> (1,5 ft<sup>2</sup>).

## 6.10 United Kingdom

Table 10 — Classification based on green weight

Animal type	Green weight (kg)
Cows	20,0 and below
	20,5–23,5
	24,0–27,5
	28,0–31,5
	32,0–36,5
	37,0 and above
Oxen/heifers	22,0 and below
	22,5–27,5
	28,0–31,5
	32,0–36,5
	37,0–41,5
	42,0–46,5
Bulls	47,0 and above
	22,0 and below
	22,5–36,5
	37,0–46,5
	47,0–54,5
55,0 and above	
Calves	4,0 and below
	4,5–6,0
	6,5–8,0
	8,5–10,0
	10,5–12,0
	12,5–14,0
	14,5–16,0

Size: 1 kg of raw material would measure 0,15–0,17 m<sup>2</sup> (1,6–1,8 ft<sup>2</sup>).

**Table 11 — Classification based on wet salted weight**

<b>Animal type</b>	<b>Wet salted weight (kg)</b>
Cows	18,0 and below
	18,5-21,0
	21,5-24,5
	25,0-28,0
	28,5-32,0
	32,5 and above
Oxen/heifers	20,0 and below
	20,5-24,5
	25,0-28,5
	29,0-33,0
	33,5-37,5
	38,0-42,0
Bulls	20,0 and below
	20,5-24,5
	25,0-33,0
	33,5-41,0
	41,5-48,0
	48,5 and above
Calves	3,8 and below
	3,9-5,6
	5,7-7,4
	7,5-9,1
	9,2-10,8
	10,9-12,5
12,6-14,2	

**Table 12 — Classification based on dry salted weight**

<b>Animal type</b>	<b>Dry salted weight (kg)</b>
Cows	10,8 and below
	10,9-16,5
	16,6-21,9
	22,0 and above
Oxen/heifers	10,8 and below
	10,9-16,5
	16,6-21,9
	22,0 and above
Calves	3,0 and below
	3,1-5,5