



BSI Standards Publication

# Leather — Raw cattle hides and calf skins

Part 2: Guidelines for grading on the basis of mass

### **National foreword**

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# TECHNICAL REPORT

# ISO/TR 2822-2

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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

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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.

# 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**

<b>Animal type</b>	<b>Weight (kg)</b>
Mamonos (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**

<b>Animal type</b>	<b>Weight (kg)</b>
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**

<b>Animal type</b>	<b>Weight (kg)</b>
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	42,5 and above
	20,0 and below
	20,5-24,5
	25,0-33,0
	33,5-41,0
	41,5-48,0
Calves	48,5 and above
	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

**Table 13 — Classification based on dried weight**

<b>Animal type</b>	<b>Dried weight (kg)</b>
Cows	3,6 and below
	3,7-5,5
	5,6-7,3
	7,4 and above
Oxen/heifers	3,6 and below
	3,6
	3,7-5,5
	5,6-7,3
Calves	7,4 and above
	1,0 and below
	1,1-1,8



## Bibliography

- [1] ISO 2820, *Leather – Raw hides of cattle and horses – Method of trim*





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