

---

---

**Buffalo hides and buffalo calf skins —**  
**Part 2:**  
**Grading on the basis of mass and size**

*Peaux de bovinés —*

*Partie 2: Classement sur la base de la masse et de la taille*



**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2009

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 28499-2 was prepared by Technical Committee ISO/TC 120, *Leather*, Subcommittee SC 1, *Raw hides and skins, including pickled pelts*.

ISO 28499 consists of the following parts, under the general title *Buffalo hides and buffalo calf skins*:

- *Part 1: Description of defects*
- *Part 2: Grading on the basis of mass and size*
- *Part 3: Grading on the basis of defects*



# Buffalo hides and buffalo calf skins —

## Part 2: Grading on the basis of mass and size

### 1 Scope

This part of ISO 28499 provides guidance on the classification of raw, wet-salted, dry-salted and dried buffalo hides and buffalo calf skins intended for tanning.

It applies to water-buffalo hides and water-buffalo calf skins and not to those of wild buffalo and American bison (*Bison bison*).

### 2 Terms and definitions

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

#### 2.1

##### **buffalo calf skin**

skin of a young or immature buffalo

#### 2.2

##### **buffalo hide**

outer hide covering of a fully grown buffalo

#### 2.3

##### **green mass**

mass of a hide or 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 another chemical or natural agent or process

#### 2.4

##### **wet salted**

curing of hides and skins by treating the flesh side with salt, and then merely draining so that the product remains wet

**NOTE** In this process, fresh hides and skins are stacked on the floor with salt (sodium chloride) being sprinkled between the layers of hides or skins.

#### 2.5

##### **dry salted**

type of curing in which the hides and skins are treated with salt (sodium chloride) and then dried

### 3 Trimming

#### 3.1 Buffalo hides

Before being classified by mass, the fore shanks of the hides should be knee-trimmed, the hind shanks should be trimmed square at the hock, removed from the rump and the brisket butt fairly shaped; and horns, tailbones and head meat should be removed. Heads should be trimmed by removing the mask (pates), ears and lips, leaving only the cheeks. (See ISO 2820<sup>[1]</sup>.)

#### 3.2 Buffalo calf skins

Before being classified by mass, the shanks of the skins should be trimmed short, the tailbones should be removed and the skin should be without head, i.e. cut off behind the ears and without cheeks. (See ISO 2820<sup>[1]</sup>.)

### 4 Determination of mass

#### 4.1 Raw buffalo hides and buffalo calf skins

Weigh raw buffalo 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.

#### 4.2 Wet-salted buffalo hides and buffalo calf skins

Open each hide or calf skin to be weighed. Shake it violently by hitting the flesh/grain side against the ground or a rectangular support 300 mm to 400 mm high. Remove left-over salt by brushing. Weigh wet-salted buffalo hides to the nearest 0,5 kg and wet-salted calf skins to the nearest 0,1 kg.

#### 4.3 Dry-salted buffalo hides and buffalo calf skins

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

#### 4.4 Dried buffalo hides and buffalo calf skins

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

### 5 Grading on the basis of mass

Buffalo hides and buffalo calf skins may be graded on the basis of mass in accordance with Table 1.

**Table 1 — Grading of buffalo hides and buffalo calf skins on the basis of mass**

Category	Mass, kg			
	Raw	Wet salted	Dry salted	Dried
Calf skins	Up to 13,0	Up to 11,0	Up to 7,0	Up to 4,5
Light hides	13,5 to 22,0	11,5 to 18	7,5 to 12	4,4 to 7,2
Medium hides	22,5 to 30,0	18,5 to 25,0	12,5 to 16,5	7,3 to 10,0
Heavy hides	30,5 to 36,0	25,5 to 30,5	17,0 to 20,0	10,0 to 12,0
Extra-heavy hides	Above 36,0	Above 30,5	Above 20,0	Above 12,0

## 6 Grading on the basis of size

Buffalo hides and buffalo calf skins may be graded on the basis of size (area) in accordance with Table 2.

**Table 2 — Grading of buffalo hides and buffalo calf skins on the basis of size**

<b>Category</b>	<b>Size (area) dm<sup>2</sup></b>
Calf skins	Up to 150
Light hides	151 to 180
Medium hides	181 to 250
Heavy hides	251 to 300
Extra-heavy hides	Above 301

## Bibliography

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





